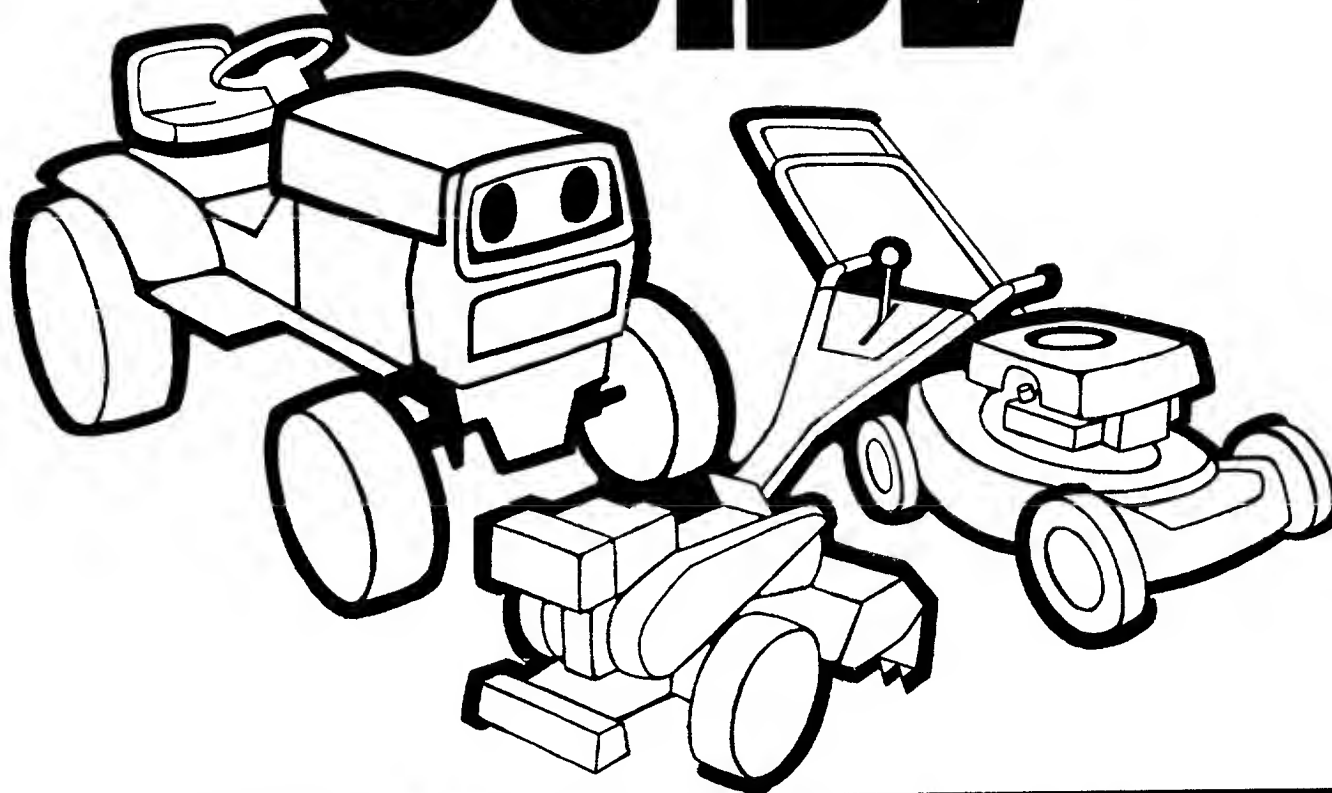


OWNER'S GUIDE



**ASSEMBLY
OPERATION
MAINTENANCE
PARTS LIST**

**IMPORTANT:
Read Safety Rules
and Instructions**

**MODEL NUMBER
130-720A
11 H.P.
LAWN
TRACTOR**



**NOTE
OPTIONAL 38" DECK
MODEL NO. 190-959A
AVAILABLE**

LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



TO PURCHASERS OF INTERNAL COMBUSTION ENGINE EQUIPPED MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment which you have just purchased does not have a spark arrester. If this equipment is used on any forest covered land, brush covered land; or grass covered unimproved land in the State of California, before using on such land, the California law requires that a spark arrester be provided. In addition, spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

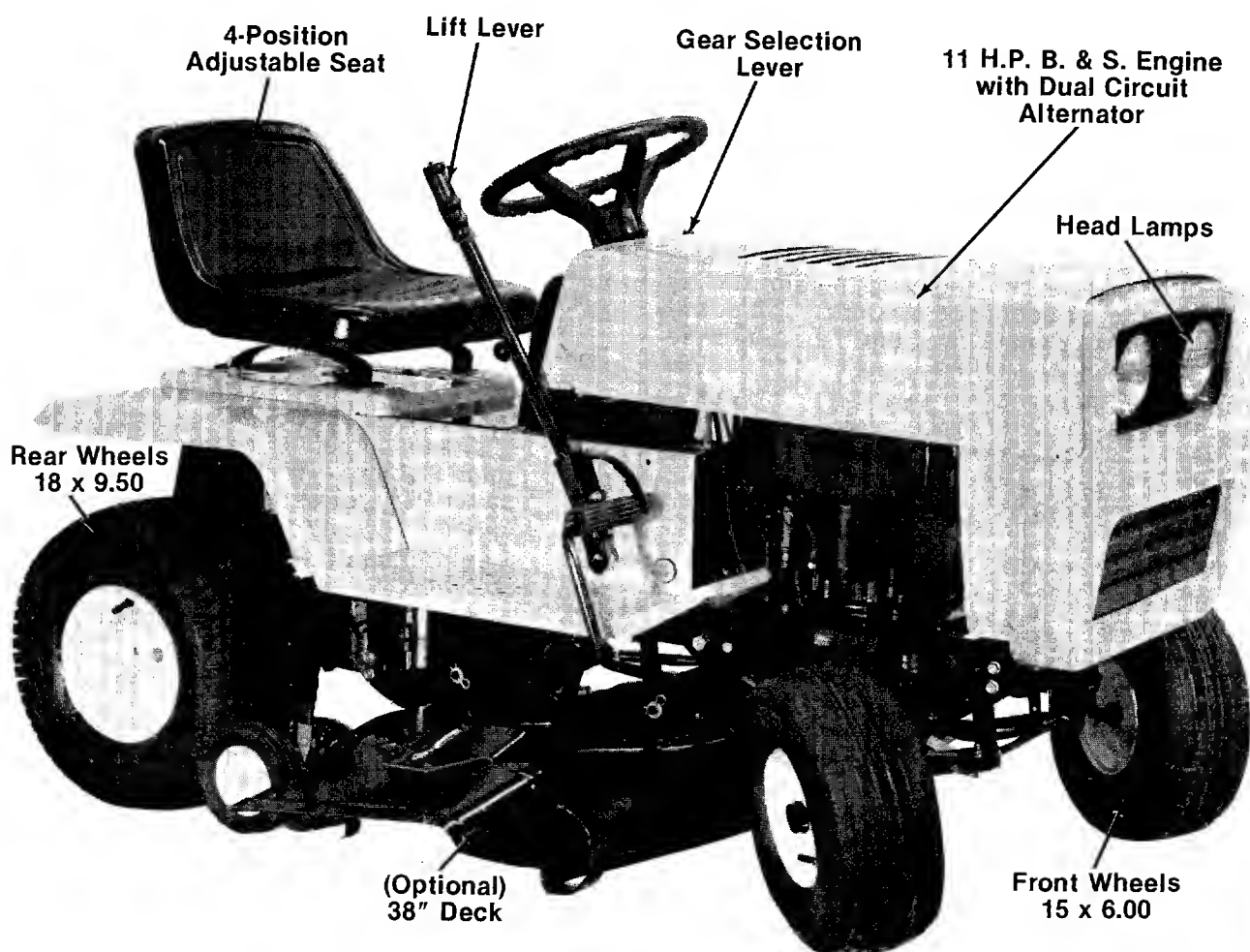
SAFE OPERATION PRACTICES FOR RIDING VEHICLES

1. Know the controls and how to stop quickly—**READ THE OWNER'S MANUAL.**
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
3. Do not carry passengers
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction.
5. Clear work area of objects which might be picked up and thrown by the mower in any direction.
6. Disengage all attachment clutches and shift into neutral before attempting to start engine.
7. Disengage power to attachment(s) and stop engine before leaving operating position.
8. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
9. Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
10. Disengage power to attachment(s) when transporting or not in use.
11. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
13. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
14. Stay alert for holes in terrain and other hidden hazards.
15. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
- D. Use counterweight(s) or wheel weights when suggested in owner's manual.
16. Watch out for traffic when crossing or near roadways.
17. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
18. Handle gasoline with care. It is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.
19. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
20. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
21. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
22. To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
23. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
24. Do not change the engine governor settings or overspeed the engine.
25. When using the vehicle with mower, proceed as follows:
 - (1) Mow only in daylight or in good artificial light.
 - (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
 - (3) Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
 - (4) Check blade mounting bolts for proper tightness at frequent intervals.
26. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
27. Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

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KNOW YOUR TRACTOR



ASSEMBLY

The Garden Tractor is packed and shipped in one container and is fully assembled except for the steering wheel, seat, battery and mounting the cutting deck.

BATTERY INFORMATION



WARNING

- A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.
- B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.
- C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.
- D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.



DANGER

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added)

- A. Keep sparks, flame, cigarettes away.
- B. Hydrogen gas is generated during charging and discharging.
- C. Ventilate when charging or using in enclosed space.
- D. When using a charger—to avoid sparks, NEVER connect or disconnect charger clips to battery while charger is turned on.
- E. Always shield eyes, protect skin and clothing when working near batteries.

ACTIVATING THE BATTERY



NOTE

If your battery is activated (electrolyte in the battery) and installed in the tractor go directly to step 9.

- 1. Place the battery to be filled on a workbench. Never activate a battery in the unit.
- 2. Remove the fill caps from all cells.
- 3. Fill each cell carefully using 1.265 specific gravity electrolyte. Fill each cell to the top of the separators. Do not overfill.
- 4. Let the battery sit for 20 minutes for the chemical reaction to take place.
- 5. Charge the battery at a **MAXIMUM RATE OF 5 AMPS.** until the specific gravity reads 1.265. Use a hydrometer to check the specific gravity.



CAUTION

An excessive rate of charge will damage the battery.

- 6. Check the level of electrolyte. Adjust level to bottom of split ring if necessary with electrolyte.
- 7. Replace fill caps.
- 8. Once the battery has been activated never add anything except distilled water or a good grade of drinking water.
- 9. If your battery has been installed in your unit at the factory:
 - A. Use a hydrometer to check the specific gravity. The specific gravity should be 1.265 at 80° F.
 - B. If it is less, remove the fill caps and use a battery charger to bring the specific gravity up to 1.265. **NEVER CHARGE AT MORE THAN 5 AMPS.**
 - C. Replace the fill caps.
 - D. The positive cable has been attached to the positive terminal of the battery at the factory. You only have to attach the negative cable (grounded) to the negative (Neg, N or -) terminal of the battery with a hex head bolt, lock washer and nut.

Installing the Battery



NOTE

The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

- 1. Place the battery in the battery box with the terminals towards the rear of the tractor.
- 2. Secure the battery with the two hold down rods, battery hold down, lock washers and wing nuts. See figure 1.

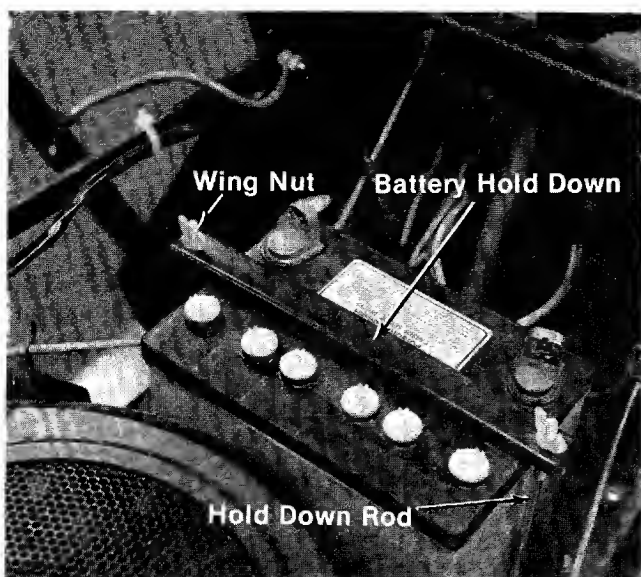


FIGURE 1.

3. Attach the positive cable (from the starter solenoid) and the small wire (from the circuit breaker) to the positive battery terminal (+) with a $\frac{1}{4}$ -20 x $\frac{3}{4}$ " long bolt, lock washer and hex nut.
4. Attach the negative cable (grounded) to the negative battery terminal (-) with the other $\frac{1}{4}$ -20 x $\frac{3}{4}$ " long bolt, lock washer and hex nut.

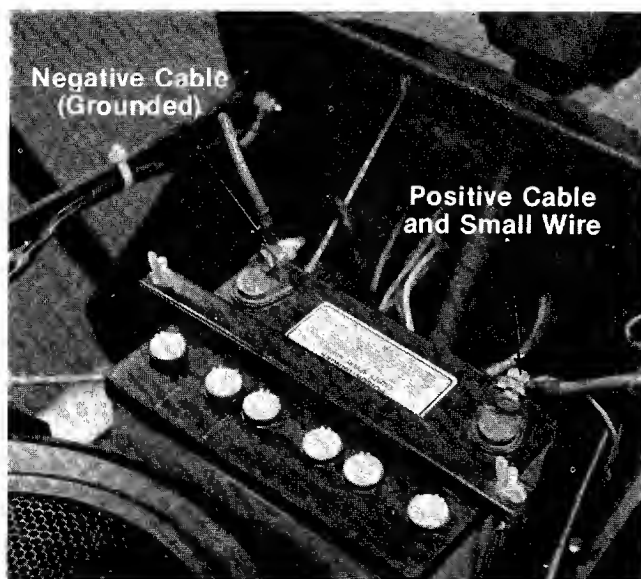


FIGURE 2.

NOTE

The vented battery allows any gases or liquid from the battery to be carried to the rear of the tractor and on to the ground.

Route the rubber drain tube down beside the tractor frame so it drains onto the ground.

SEAT ASSEMBLY

The seat can be adjusted to four positions. With the seat tipped forward, hook the front of the seat spring into the slots on the tractor frame. Allow the seat to pivot backwards until it rests on the rear of the springs. (See figure 3.)

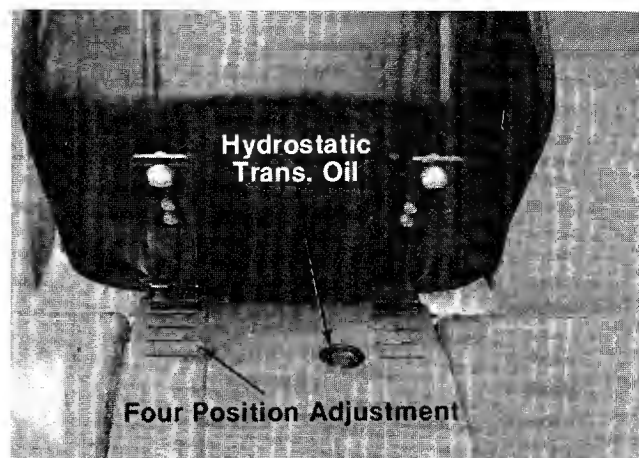


FIGURE 3.

STEERING WHEEL

1. Place the steering wheel over the steering column extending through the dash. Line up the flats on the steering column with the flats in the steering wheel. (See figure 4.)

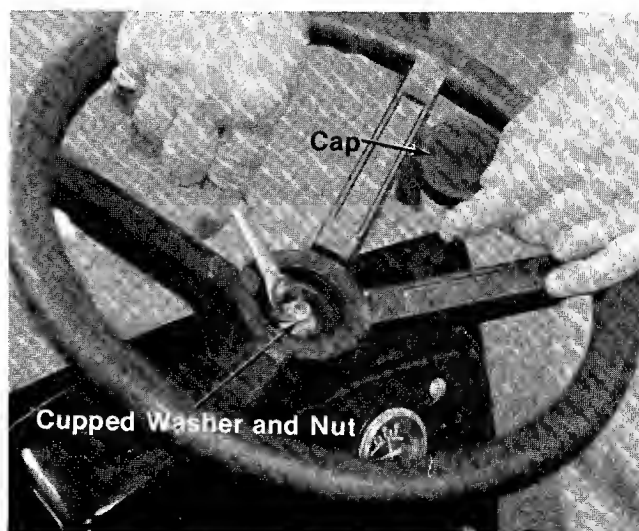


FIGURE 4.

2. Place the washer with the cupped side down over the steering column and secure with a hex nut $\frac{5}{16}$ ".
3. Place the cap over the center of the steering wheel and seat it with your hand.

TIRE PRESSURE

Reduce the rear wheel tire pressure to 15 p.s.i. for operation. The tires have been over-inflated for shipping. Equal tire pressure should be maintained on all tires. Maximum tire pressure is 30 p.s.i.



CAUTION

Pull the lift lever back to the raised position before taking the tractor off the skid.

ATTACHING THE CUTTING DECK (Optional)

Deck Assembly Screw Pack

- 4 Flat Washers 1/2" I.D.
- 4 Medium Cotter Hairpins
- 2 Deck Wheels
- 2 Shoulder Bolts
- 2 Belleville Washers

1. Assemble the deck wheels to the pivot bars using the shoulder bolts and the belleville washers. (See figure 5.)



NOTE

The cupped side of the belleville washer goes towards the pivot bar.

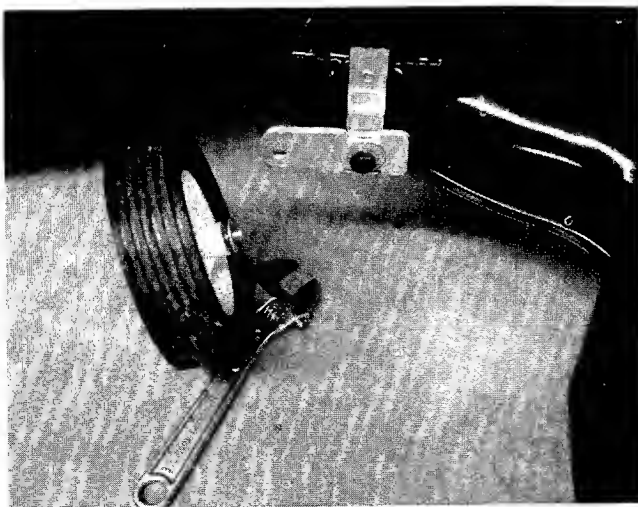


FIGURE 5.

2. Remove the round belt keeper from the idler by removing the cotter hairpin. (See figure 6.)
3. Unscrew the "L" bolt and swing the wire belt guard on the engine pulley forward.

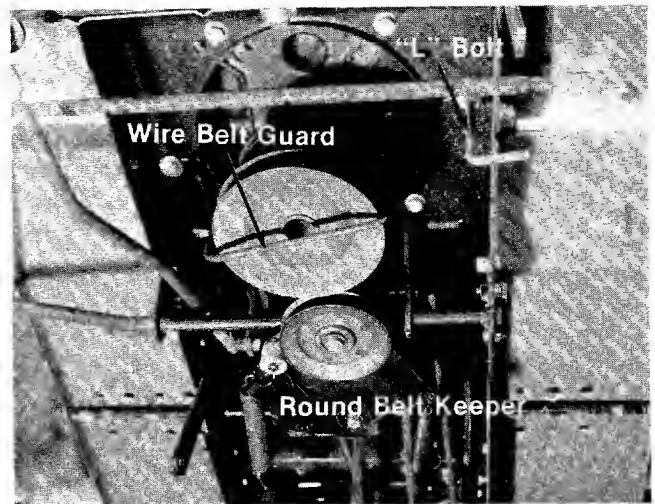


FIGURE 6.

4. Adjust the deck wheels to their lowest cutting position.
5. Move the tractor lift handle all the way back to the full raised position.
6. Turn the tractor steering wheel all the way to the left.
7. Swing the front linkage forward.
8. Slide the deck under the tractor from the left side.
9. Attach the four tractor hanger brackets to the deck with four 1/2" I.D. washers and four medium cotter hairpins. (See figure 7.)



NOTE

The left front tractor hanger bracket goes through the center of the V-belt.

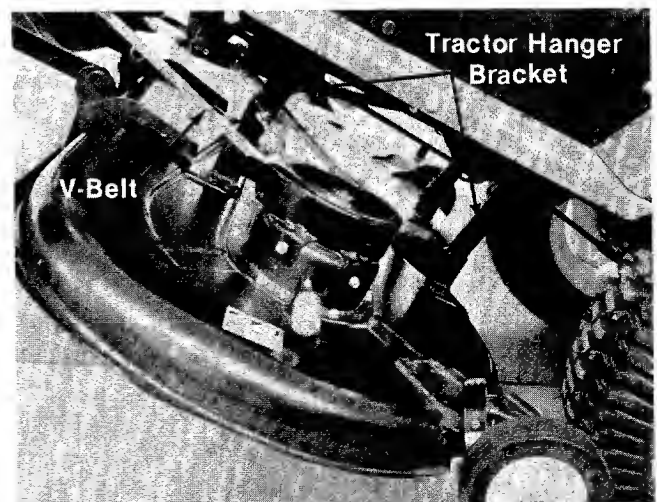


FIGURE 7.

10. Assemble the front cross bar as shown in figure 8 using two large cotter hairpins to attach the deck linkage to the tractor frame.

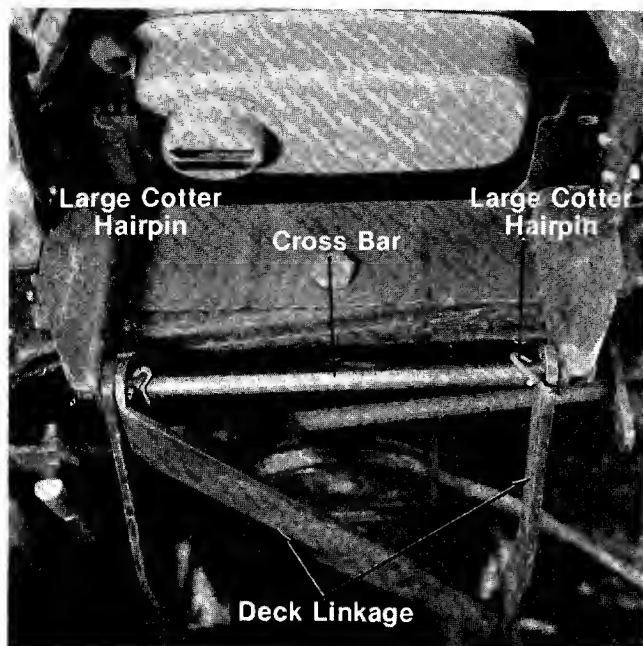


FIGURE 8.

11. Place the deck belt around the engine pulley and idler. (See figure 9.)
12. Replace the round belt guard and swing the wire belt guard over the engine pulley and secure it with the "L" bolt.
13. Check all belt guards for clearance. The belt guards must be between 1/16" and 1/8" away from the belt when the PTO lever is in the engaged position.
14. Remove the small cotter hairpin from the brake release cable on the cutting deck.
15. Hook the brake release cable into the tractor idler bracket and secure it with the small cotter hairpin and clevis pin.

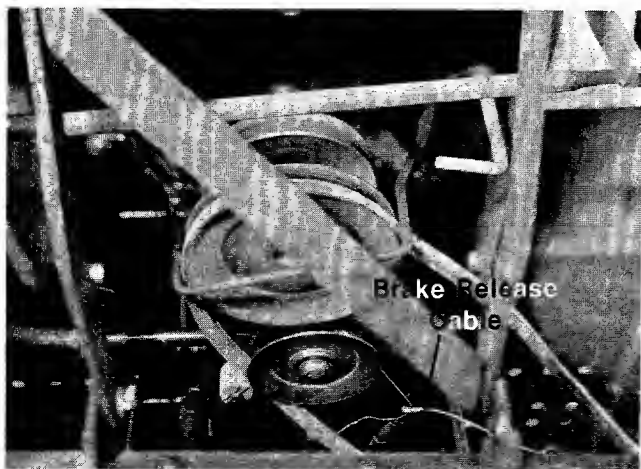


FIGURE 9.

CONTROLS AND PRELIMINARY CHECKS

CONTROLS

Ignition Switch

The ignition switch is located in the center of the dashboard. Turn the key to the "START" position to start the engine. When the engine is running leave the key in the "ON" position. To stop the engine turn the key to the "OFF" position. (See figure 10.)



Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

Throttle Control

The throttle control is located on the left side of the dashboard and is used to regulate the engine speed. (See figure 10.) The engine should be operated from $\frac{3}{4}$ to full throttle (FAST) when operating any equipment that uses the tractor engine as a source of power such as the mowing deck, snow thrower or rotary tiller. (See figure 10.)

Light Switch

The head lamps are operated by pushing the light switch located on the dashboard. The head lamps will only operate when the engine is running. (See figure 10.)

Ammeter

The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus (+) side when the engine is running in the FAST position until the battery is completely charged.

With a fully charged battery or with the engine idling the ammeter may not show a charge.

The maximum charging rate is 3 amps. The head lamps operate directly from the engine alternator and do not register on the ammeter. (See figure 10.)

Gasoline Tank

The gasoline tank is located on the engine. Fill the gasoline tank with approximately 1.9 gallons of clean, fresh, lead-free or leaded "regular" grade automotive gasoline. Raise the hood forward to fill the tank.

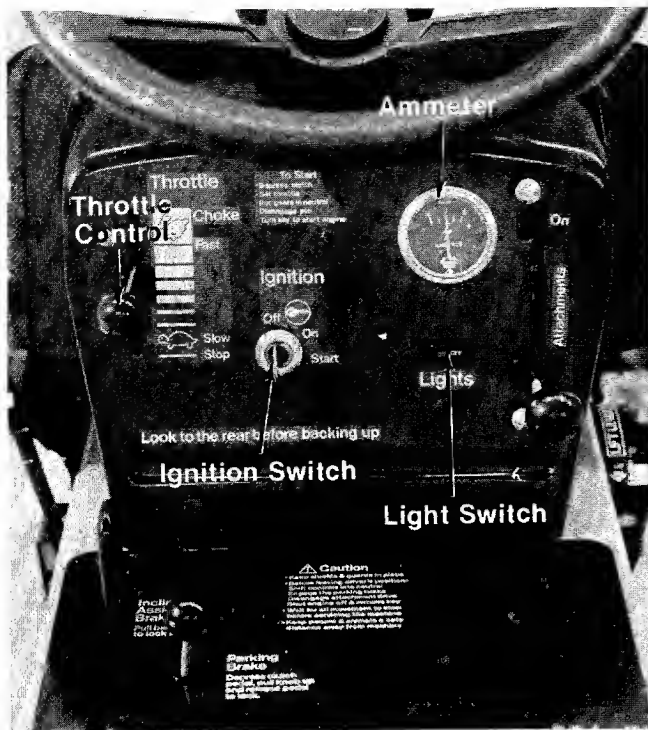


FIGURE 10.

Seat Adjustment

The tractor seat is adjustable to four positions. To change positions, tip the seat all the way forward and lift it out of the slots on each side. (See figure 11.)

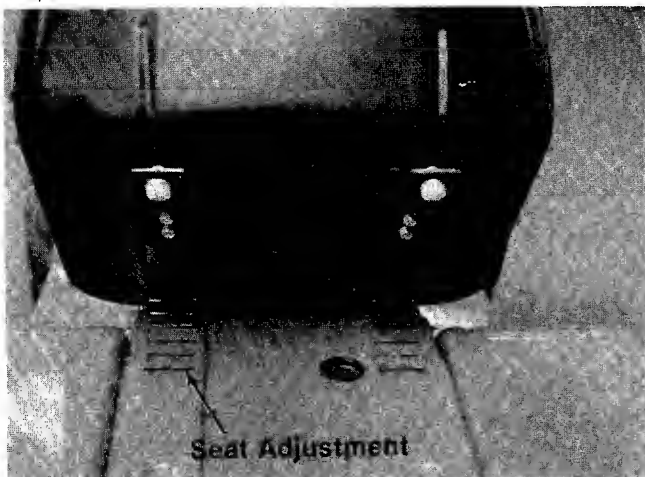


FIGURE 11.

Clutch-Brake Pedal

The clutch-brake pedal is located on the right side of the tractor. Depressing the clutch-brake pedal part way disengages the clutch.

Pressing the pedal all the way down disengages the clutch and engages the disc brake. (See figure 12.)



The clutch-brake pedal must be depressed to start the engine.



FIGURE 12.

Parking Brake

To set the parking brake, depress the clutch-brake pedal and pull up the parking brake knob. It will stay in the raised position. To release the parking brake, depress and release the clutch-brake pedal. (See figure 13.)

Incline Assistance Brake

When stopping on a hill, hold the lever back while you release the clutch-brake pedal until the tractor begins to move, then release the lever. This prevents you from moving on the hill while releasing the clutch. (See figure 13.)

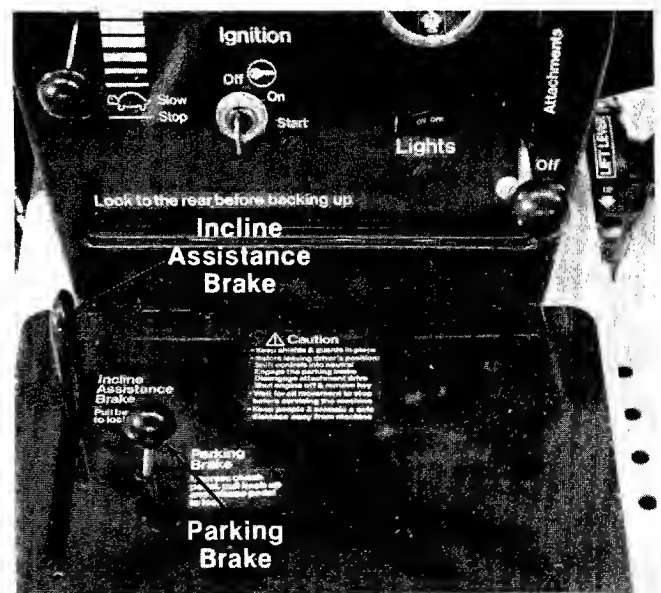


FIGURE 13.

Power Take Off (PTO) Lever

The PTO engagement lever is located on the right side of the dashboard. It is used to engage the blades on the cutting deck or snow thrower attachments. To turn on the attachment, lift the lever slowly and lock it in the notch. To turn off the attachment, remove the lever from the notch and lower it to the off position. (See figure 14.)



NOTE

The PTO Engagement Lever must be in the "OFF" position to start the engine.

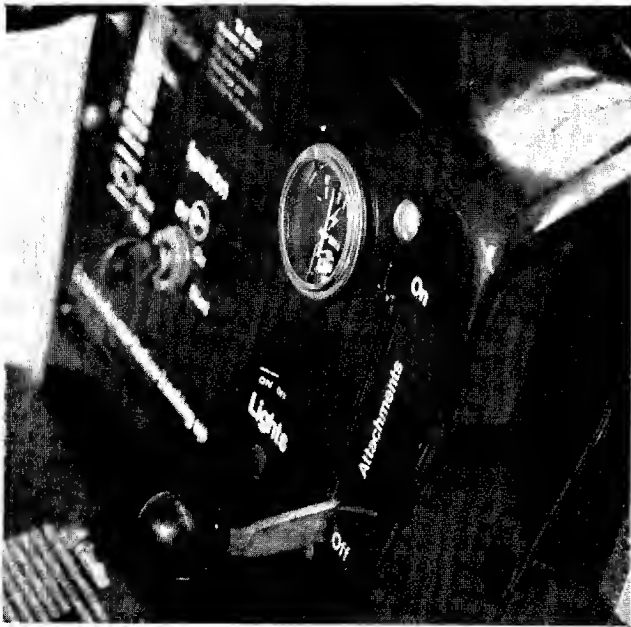


FIGURE 14.

Lift Lever

The five position lift lever is used to change the operating position of the attachments. To operate pull the lever towards you. To release, move the lever to the right and then forward. (See figure 15.)

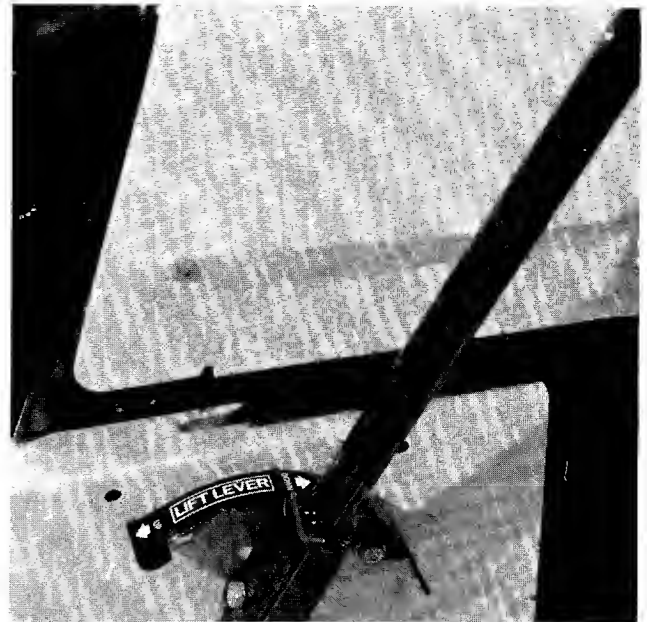


FIGURE 15.

Gear Shift Lever

The transaxle has five forward gears, neutral and reverse. You do not shift through the gears on the transaxle as you would in an automobile. Pre-select the gear appropriate for the job you are doing. (See figure 16.)

You must depress the clutch-brake pedal and come to a complete stop before shifting gears.

- 1st Heavy grass cutting.
Heavy snow removal.
- 2nd Heavy grass cutting.
Light snow removal.
- 3rd Normal grass cutting.
- 4th Light grass cutting.
- 5th Traveling.

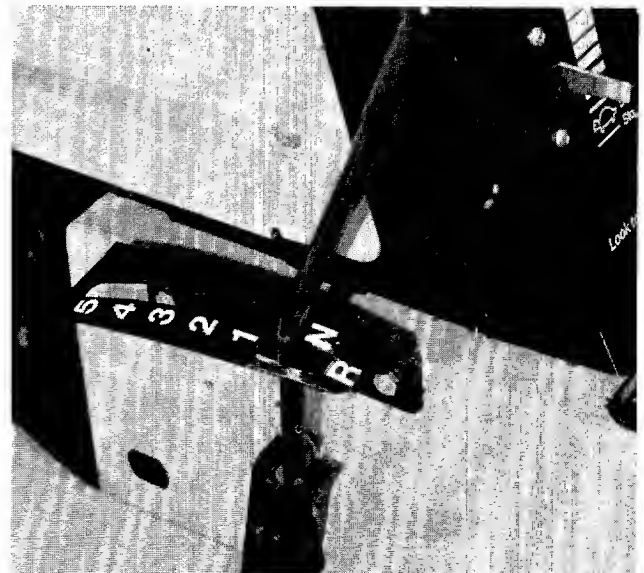


FIGURE 16.

CHECKING OIL AND GASOLINE



NOTE

When packaged for shipment, the machine contains no oil or gasoline. Before starting the engine, oil must be added to the engine crankcase and gasoline to the tank. DO NOT mix oil with gasoline.

Briggs & Stratton. Use a high quality detergent oil classified "For Service SC or SD or MS." Nothing should be added to the recommended oil.

Summer. (Above 40°F.) Use SAE 30. If not available use SAE 10W-30 or SAE 10W-40.

Winter. (Under 40°F.) Use SAE 5W-20 or SAE 5W-30. If not available, use SAE 10W or SAE 10W-30. Below 0°F., use SAE 10W or SAE 10W-30 diluted 10% with kerosene.

Place the engine level. Fill the oil sump to the FULL mark on the dipstick. Pour slowly.

Crankcase Capacity—3½ Pints.

OPERATION

CAUTION

1. KEEP ALL SHIELDS & GUARDS IN PLACE
2. BEFORE LEAVING OPERATOR'S POSITION:
SHIFT CONTROLS INTO NEUTRAL
SET PARKING BRAKE
DISENGAGE ATTACHMENT DRIVE
SHUT ENGINE OFF
REMOVE IGNITION KEY
3. WAIT FOR ALL MOVEMENT TO STOP BEFORE
SERVICING MACHINE
4. KEEP PEOPLE & PETS A SAFE DISTANCE
AWAY FROM MACHINE

CAUTION

DO NOT OPERATE
MOWER UNLESS
GUARD IS IN ITS
PROPER PLACE.

Operation

1. Place the PTO lever in the disengaged position (down). (See figure 14.)
2. Depress the clutch-brake pedal and set the parking brake. (See figures 12 and 13.)
3. Place the gear shift lever in the "NEUTRAL" (N) position. (See figure 16.)
4. Set the throttle control in the "FAST" position. (See figure 10.)
5. Turn the ignition key to the right to the "START" position. After the engine starts release the key. It will return to the "ON" position. (See figure 10.)
6. Select one of five forward gears. (See figure 16.)
7. Slowly depress the clutch-brake pedal so the parking brake is released and then release the clutch-brake pedal. (See figures 12 and 13.)
8. To stop the tractor, pull the gear shift lever into "NEUTRAL" (N) or depress the clutch-brake pedal.
9. To shut off the engine, turn the ignition key to the "OFF" position.



IMPORTANT

After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

MAINTENANCE

TROUBLESHOOTING

Refer to the chart on page 20 for troubleshooting engine problems.

CRANKCASE OIL

To ensure maximum engine performance, perform the following periodic maintenance:

Oil Check

Check the oil level in the crankcase before each use of the machine and after every two hours of operation. Keep the oil level between ADD and FULL. (See figure 17.)

Oil Change

After the first two hours of operating a new engine, drain the oil (see figure 17) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil

after every 25 hours of operation. This procedure ensures minimum wear of engine parts and provides virtually trouble-free operation. To change the oil, proceed as follows:

- Step 1. Remove oil filler plug.
- Step 2. Drain the oil.
- Step 3. Replace oil filler plug.
- Step 4. Refill crankcase with oil. See page 11 for quantity and type of oil.

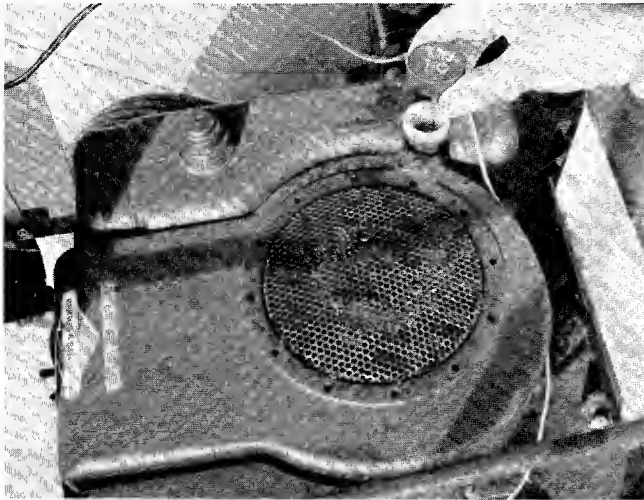


FIGURE 17.

Steering Gears—Wipe off the old grease and dirt. After every 25 hours of operation place an automotive multi-purpose grease in the teeth of the segment and pinion gears. (See figure 18.)

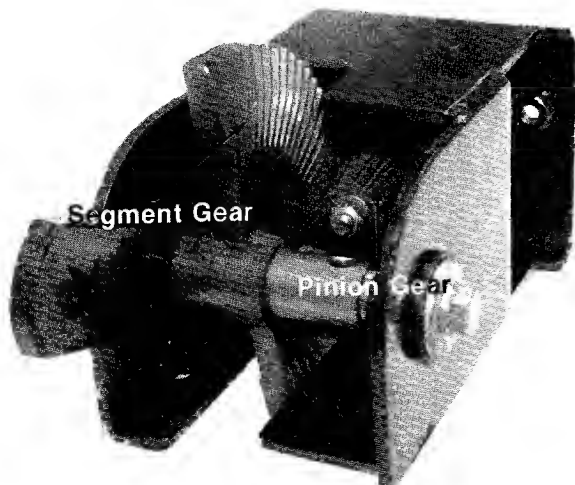


FIGURE 18.

Transaxle—The transaxle is lubricated and sealed at the factory. It is not necessary to check the lubrication level unless the transaxle is disassembled for repair. The transaxle is lubricated with 24 ounces of E.P. Lithium grease. (See figure 19.)

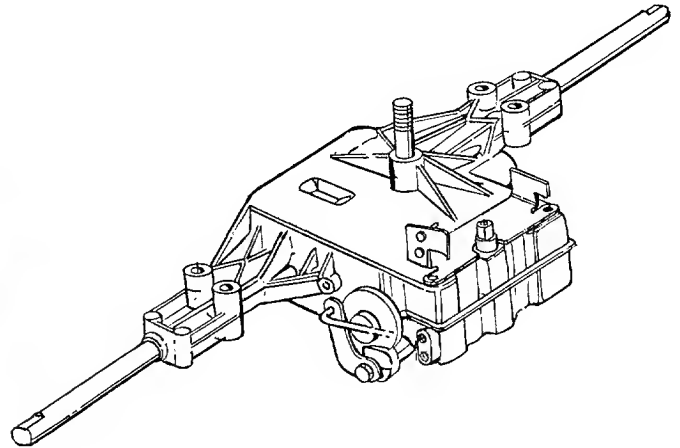


FIGURE 19.

Linkage—Once a season lubricate all the pivot points on the clutch, brake and lift linkage with SAE 30 engine oil.

Wheel Bearings—The front wheel bearings and king pin bearings have Oilon PV 80 bearings that require no lubrication.

Ball Joints—The ball joints and drag link ends are permanently lubricated.

MAINTENANCE OF BATTERY

1. Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 amps.
3. Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.
5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

STORAGE OF THE BATTERY

1. Store the battery in the unit.
2. Keep the exterior of the battery clean, especially the top. A dirty battery will discharge itself.
3. Check the battery with a hydrometer. The battery must be stored with a full charge. A discharged battery will freeze.

Specific Gravity	Freezing Point
1.265	-71°F.
1.250	-62°F.
1.200	-16°F.
1.150	5°F.
1.100	16°F.



CAUTION

All batteries discharge during storage.

4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service or every two months, whichever comes first.

COMMON CAUSES FOR BATTERY FAILURE

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte



NOTE

These failures do not constitute warranty.

BATTERY REMOVAL OR INSTALLATION



WARNING

When removing the battery follow this order of disassembly to prevent your wrench from shorting against the frame.

1. Remove the Negative cable.
2. Remove the Positive cable.

To install a battery:

1. Attach the Positive cable.
2. Attach the Negative cable.

JUMP STARTING

1. Attach the first jumper cable from the Positive terminal of the good battery to the Positive terminal of the dead battery.
2. Attach the second jumper cable from the Negative terminal of the good battery to the FRAME OF THE UNIT WITH THE DEAD BATTERY.



WARNING

Failure to use this starting procedure could cause sparking and the gases in either battery could explode.

Installation of Tire to Rim



WARNING

The following procedure must be followed when removing or installing a tire to the rim.

1. Lubricate the tire beads and rim flanges.
2. Do not exceed 30 p.s.i. when seating beads.
3. Adjust to recommended pressure after beads are sealed.

Rear Wheel Tractor Adjustment

The distance between the rear wheels can be changed from wide to narrow by removing the rear wheels one at a time and reversing them on the hub.

With the rear wheels in the narrow position, their outside is even with the outside of the front wheels.

With the rear wheels in the wide position, their inside is even with the inside of the front wheels.

Wheel Alignment

The front wheels should toe-in approximately 1/8". Measure the distances A and B on the front wheels. (See figure 20.)



NOTE

Dimension B should be approximately 1/8 inch less than dimension A.

To adjust the toe-in, loosen the hex jam nut, remove the elastic lock nut, lift the tie rod end out of the hole in the steering arm and screw the tie rod end in or out as necessary. (See figure 21.)

Reassemble the tie rod end after the correct alignment is made.

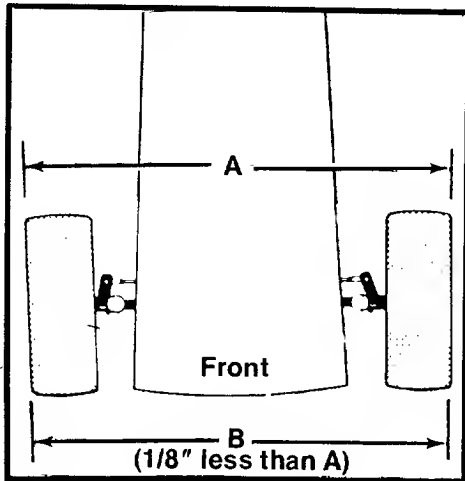


FIGURE 20.

Drag Link

If the drag link or ball joints are changed the new assembly must be adjusted to the exact same length as the original. If adjusted wrong it will allow the tractor to turn sharper one direction than the other.

To take off the draft link, remove the nuts and lock washers holding the ball joint to the steering gear and left front axle bracket.

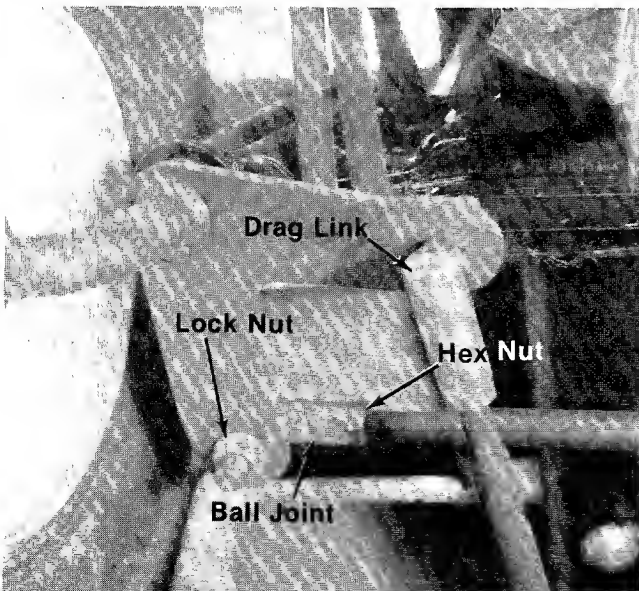


FIGURE 21.

Brake Adjustment



CAUTION

Do not adjust the brake while the engine is running. Be sure to block the wheels of the tractor before making the brake adjustment.

1. Loosen the jam nut. (See figure 22.)
2. Turn the adjusting nut in until it locks the disc.
3. Back off the adjusting nut one complete turn.
4. Tighten the jam nut.

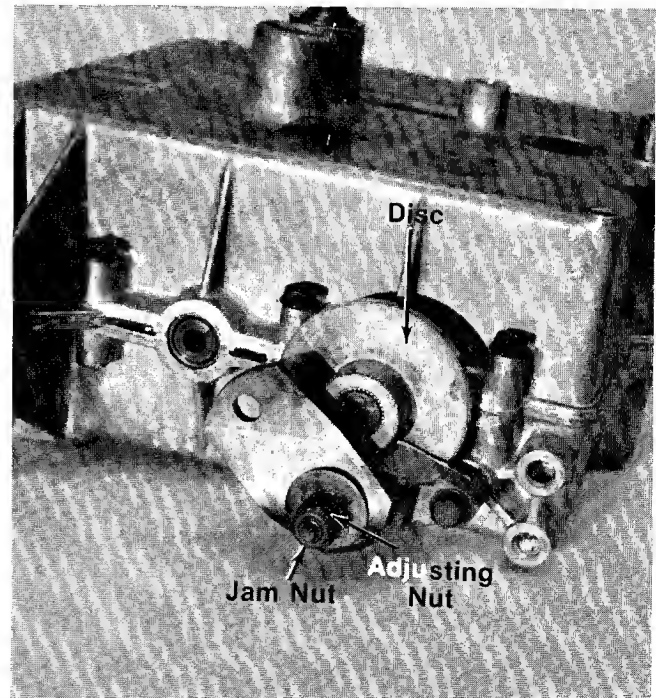


FIGURE 22.

Changing the Drive Belt (See figure 23.)

1. Remove the cutting deck outlined in the "Maintenance—Cutting Deck" section of this manual.
2. Depress the clutch pedal and set the parking brake.

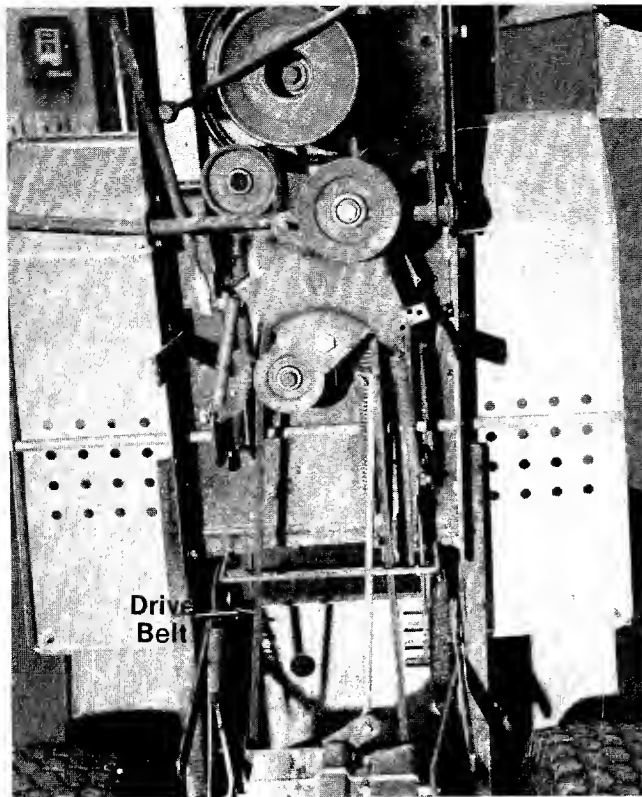


FIGURE 23.

3. Remove the transaxle belt guard by removing the two self-tapping screws. (See figure 24.)
4. Unhook the V-belt from the transaxle pulley.



FIGURE 24.

5. Remove the lower idler by taking out the center bolt and nut.



When reassembling the idler be sure to place the belt keeper in the correct position. (See figure 25.)

6. Unhook the idler spring so the idler will swing out of your way.

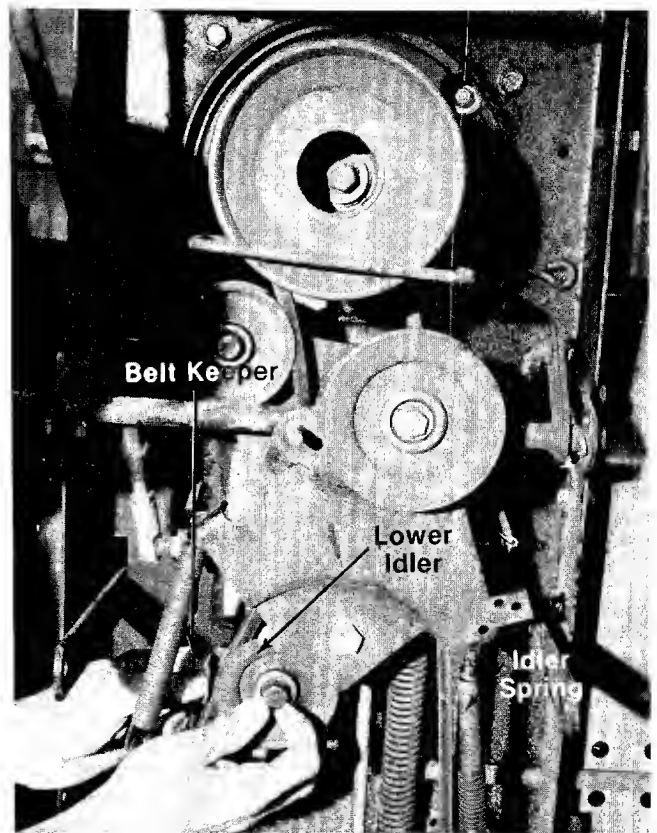


FIGURE 25.

7. Remove the cotter pin from the clutch shaft and pull it out of the bracket. (See figure 26.)

8. Remove the upper idler.

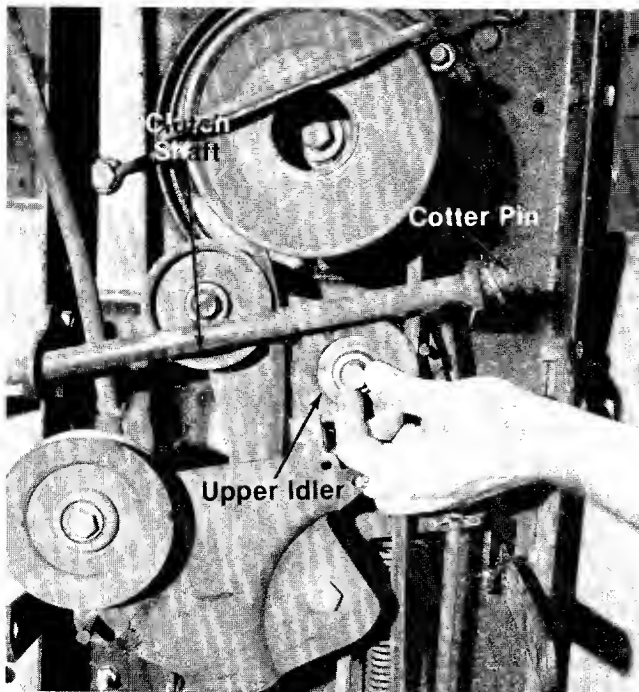


FIGURE 26.

9. Remove the cotter pin from the transaxle shifting rod and pull it out of the bracket. (See figure 27.)
10. The drive belt can now be removed.
11. Reassemble the new belt in reverse order.

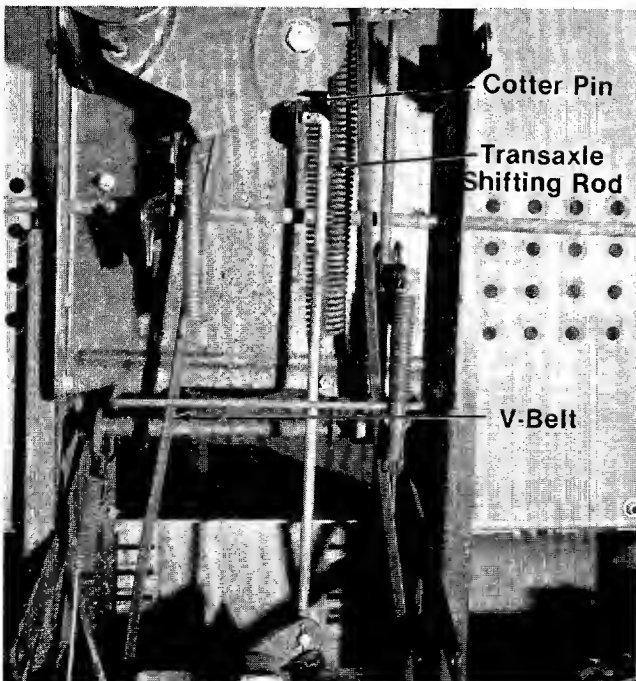


FIGURE 27.

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under extremely dusty operating conditions, the air cleaner must be serviced after every hour of operation. Refer to figure 28.

When assembling the air cleaner, make certain the lip of the foam element extends over edge of the air cleaner body. The foam element will form a protective seal.

- Step 1. Remove two screws and lift off complete air cleaner assembly.
- Step 2. Remove screen and spacers from foam element.
- Step 3. Remove foam element from air cleaner body.
- Step 4.
 - a. Wash foam element in kerosene or liquid detergent and water to remove dirt.
 - b. Wrap foam in cloth and squeeze dry.
 - c. Saturate foam in SAE 30 engine oil, then squeeze out excess oil.
 - d. Assemble parts and fasten to carburetor with screw.

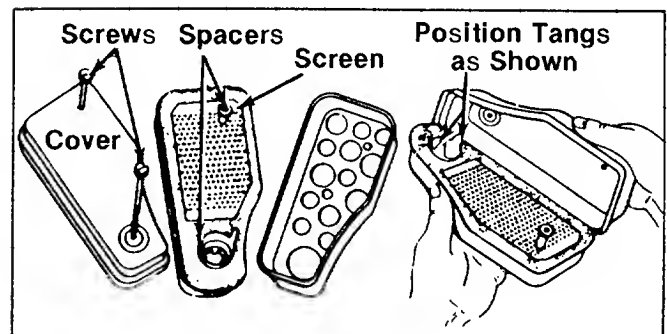


FIGURE 28. AIR CLEANER



WARNING

If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Carburetor Adjustments

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load.

To Adjust Carburetor—Turn needle valve clockwise until it just closes.



CAUTION

Valve may be damaged by turning it in too far.

Now open needle valve 1½ turns counterclockwise. Close idle valve in the same manner and open 1½ turns. This initial adjustment will permit the engine to be started and warmed up prior to final adjustment. (See figure 29.)

To make the final adjustment, place governor control lever in "FAST" position. Turn needle valve in until engine slows (clockwise—lean mixture). Then turn it out past smooth operating point (rich mixture). Now turn needle valve to midpoint between rich and lean. Next, adjust idle RPM. Rotate throttle counterclockwise and hold against stop. Adjust idle speed adjusting screw to obtain 1750 RPM. Holding throttle against idle stop, turn idle valve in (lean) and out (rich). Set at midpoint between rich and lean. Re-check idle RPM. Release throttle. If engine will not accelerate properly, the carburetor should be readjusted, usually to a slightly richer mixture.

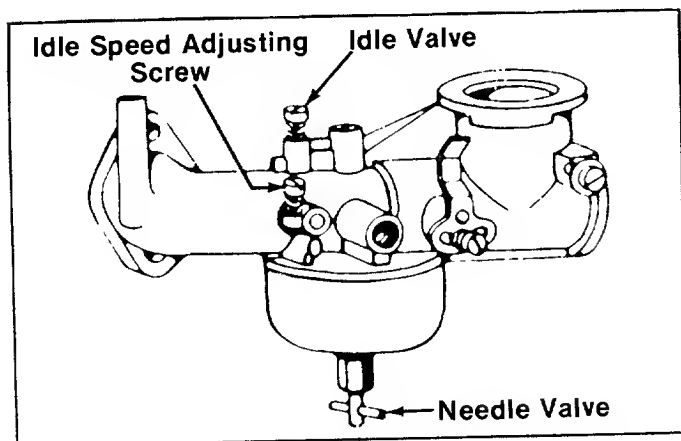


FIGURE 29.

Choke Adjustment

Place control lever on equipment in "FAST" (high speed) position. Loosen control casing clamp screw B. Move control casing A and wire until lever D touches choke operating link at C. Tighten casing clamp screw B. (See figure 30.)

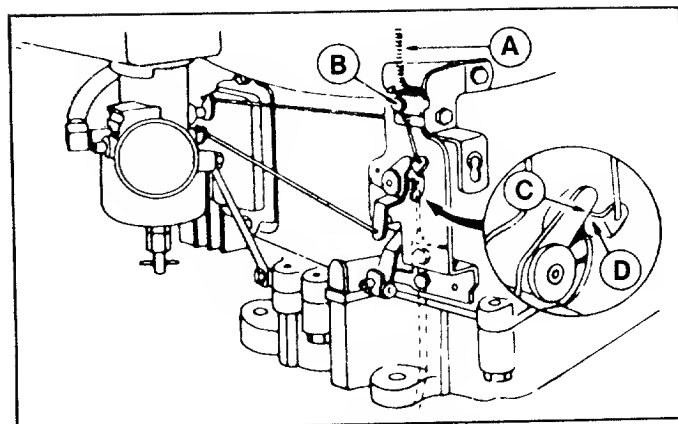


FIGURE 30. CHOKE ADJUSTMENT

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following procedures are recommended:

1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in the carburetor is exhausted.
2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.
3. Disconnect the spark plug wires and remove the spark plugs from the cylinders. Pour about 2 or 3 tablespoons of engine oil into each cylinder, and then turn the engine over several times to spread out the oil. Replace the spark plugs but do not connect the wires.
4. Clean the engine and the entire tractor thoroughly.
5. Lubricate all lubrication points and wipe the entire machine with an oiled rag in order to protect the surfaces.
6. Battery storage. See page 13.

MAINTENANCE CUTTING DECK (OPTIONAL)

CAUTION

**DO NOT OPERATE
MOWER UNLESS
GUARD IS IN ITS
PROPER PLACE.**



FIGURE 31.

Keep hands and feet away from the chute area on cutting deck. See figure 31.

Lubrication

The blade spindles on the cutting deck are permanently lubricated.

Cutting Blade

The blade may be removed for sharpening or replacement as follows:

1. Remove the large bolt and lock washer holding the blade and adapter to the blade spindle.
2. Remove the blade and adapter from the crankshaft.
3. Remove the two smaller bolts, lock washers and nuts holding the blade to the adapter. (See figure 32.)

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge be ground equally to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.

The blade can be tested for balance by balancing it on a screwdriver. Remove metal from the heavy side until it balances evenly. (See figure 33.)



When replacing the blade, be sure the side of the blade marked "Bottom" or having the part number, is facing down toward the ground when the mower is in the operating position.

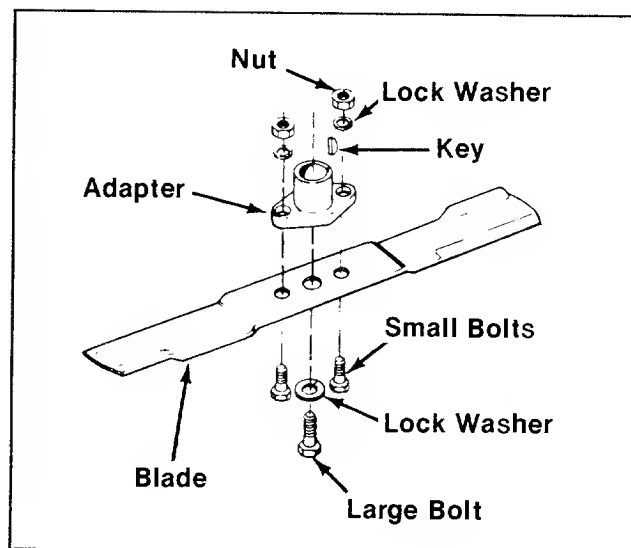


FIGURE 32.

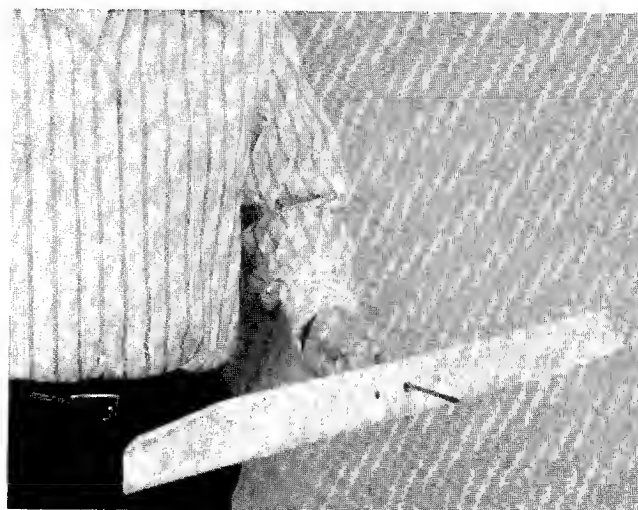


FIGURE 33.

Removing the Deck Belt

1. Remove the three hex self-tap screws holding the upper belt guard to the mower belt guard. See figure 34.
2. Replace the belt and reassemble.

Removing the Blade Belt

1. Remove the deck belt and upper belt guard. See figure 34.
2. Remove the lower belt guard by removing three hex bolts, lock washers and hex nuts. See figure 34.

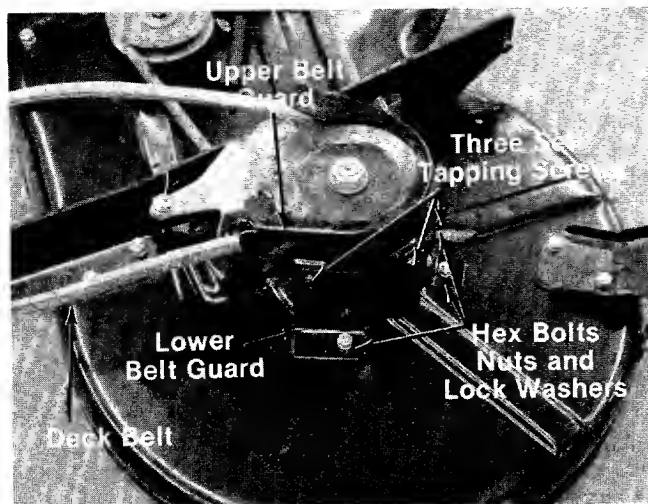


FIGURE 34.

3. Remove the right hand belt guard from deck. Remove two hex bolts, lock washers and hex nuts. See figure 35.

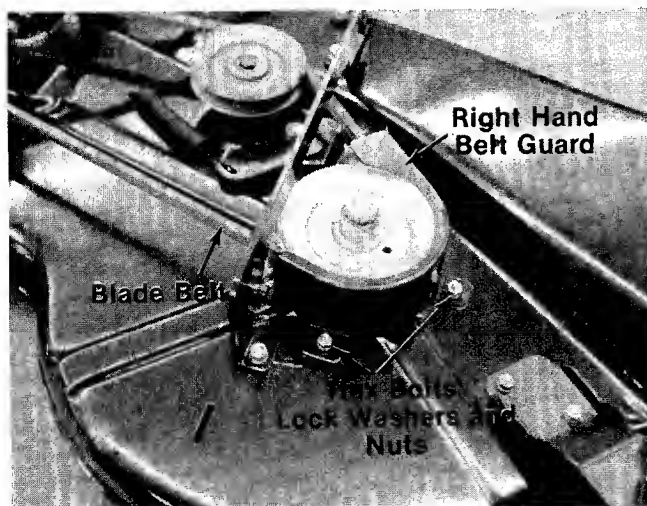


FIGURE 35.

4. Push the idler pulley inward towards the center of deck and slip the blade belt off of idler pulley. See figure 36.
5. Remove the rear bolt, nut and lock washer from the right hand hanger bracket.
6. Slide the blade belt off the deck pulleys and slip underneath the hanger brackets. See figure 36.
7. Reassemble the new belt in reverse order of the above steps.

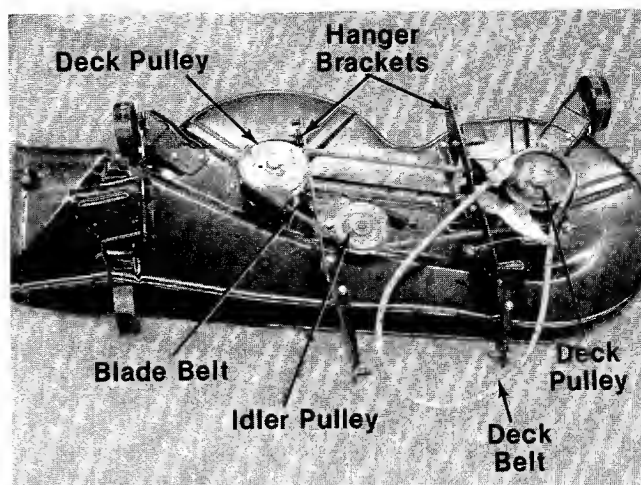


FIGURE 36.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

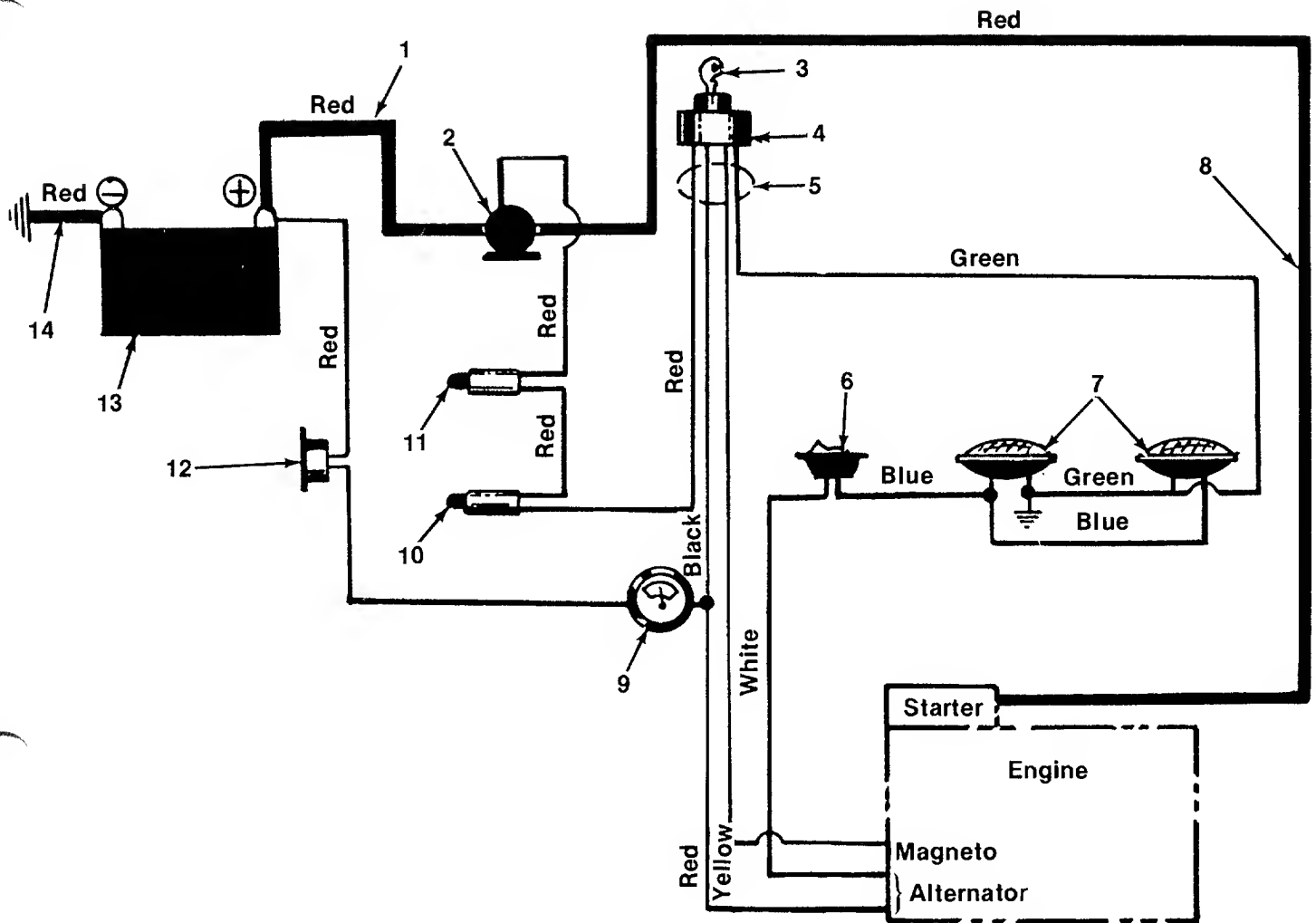
TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative, identified at the terminal post by (Neg, N or -), grounded. The positive (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blow fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined. (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working, either engine alternator or trickle charger.</p> <p>Trickle Charger. Check with multimeter. Charger 725-0578—input 120 V A.C., no load output 13.5 V D.C., rated load current 1 amp. Charger 725-0507—input 120 V A.C., no load output 17.4 V D.C., rated load current 1/2 amp.</p> <p>Alternator (dual or single circuit) The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> <div style="text-align: center;"> </div> <p>The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke (if separate control) for starting.
	Mechanical failure. (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. WARNING: While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. If the engine does not crank: (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
	No spark to spark plug	Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer. Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel valve shut off. Open valve. Valve is located either at the bottom of the fuel tank or on the carburetor. Fuel line plugged. Remove and clean.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not sealed or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	Stop engine immediately. Check all pulleys, blade spindles, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	Stop engine immediately. Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low	Throttle must be set between 3/4 and full throttle.
	Transmission selection	Use lower transmission gear. The slower your ground speed, the better the quality of cut.
	Blades short or dull	Sharpen or replace blades (uncut strip problem only).

NOTES

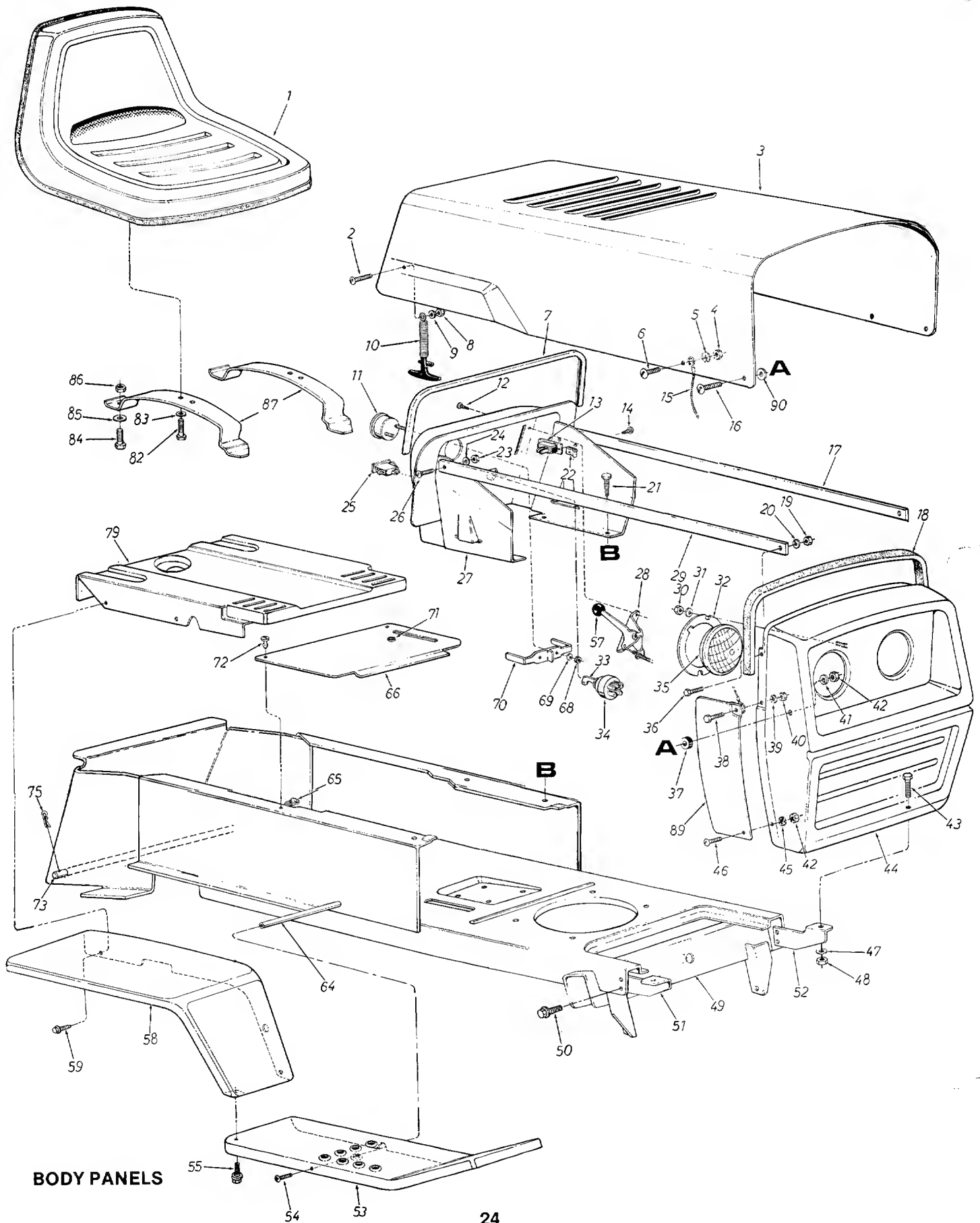
130-720A



PARTS LIST FOR ELECTRICAL SYSTEM 130-720A

REF. NO.	PART NO.	DESCRIPTION
1	725-0564	Electric Cable
2	725-0530	Solenoid
3	725-0201	Ignition Key
4	725-0267	Ignition Switch
5	725-0667	Wire Harness
6	725-0634	Light Switch
7	725-0222	Headlight
8	725-0561	Electric Cable
9	725-0119	Ammeter
10	725-0465	Safety Switch
11	725-0268	Safety Switch—Black N.O.
12	725-0459	Circuit Breaker
13	725-0453	12 V-Battery
14	725-0563	Electric Cable

130-720A



PARTS LIST FOR MODEL 130-720A

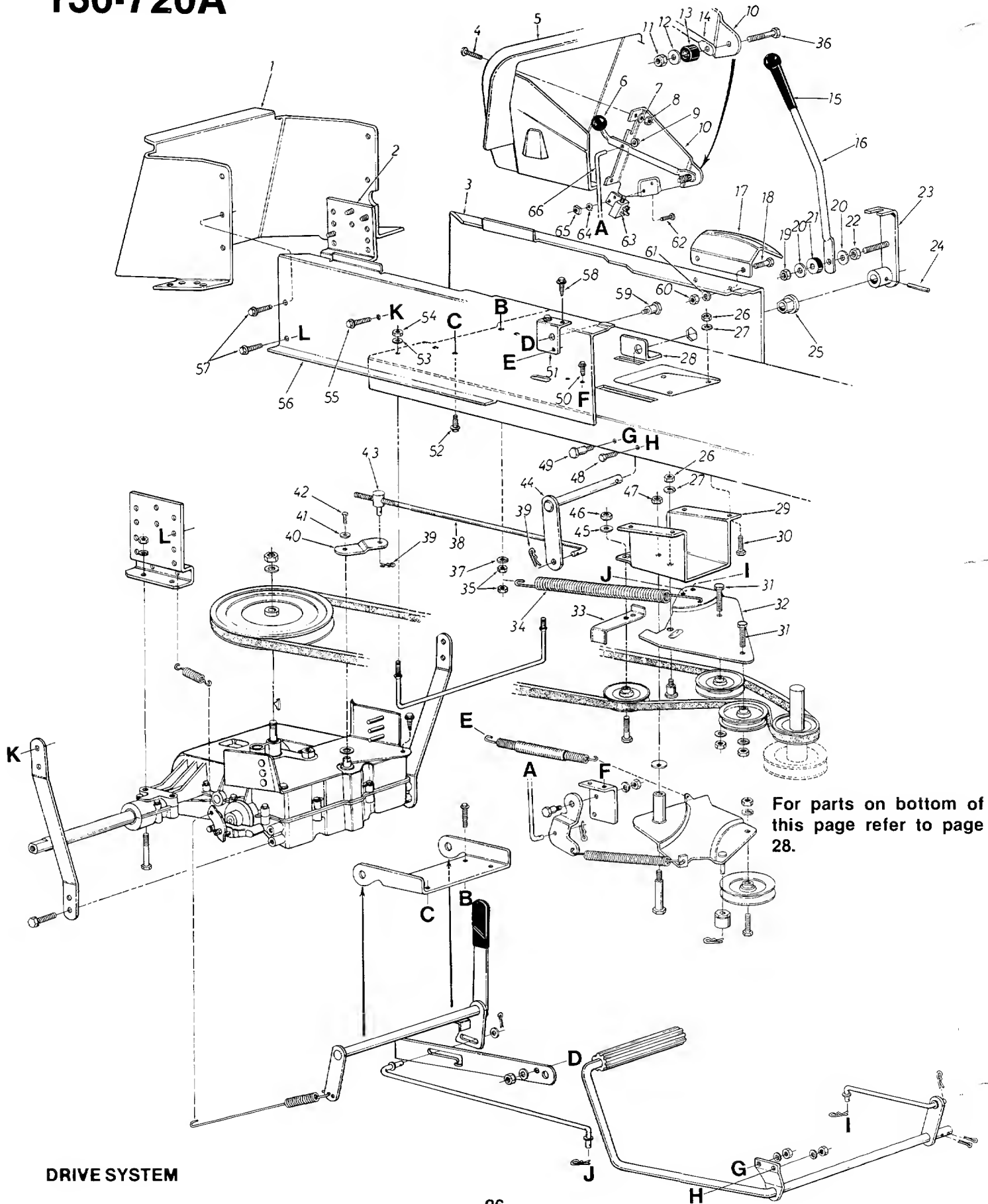
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	757-0298		Seat Assembly		42	712-0287		Hex Nut 1/4-20 Thd.*	
2	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg.*		43	710-0118		Hex Scr. 5/16-18 x .75" Lg.*	
3	13808 —462		Hood		44	13801 —462		Grille Ass'y.	
4	712-0287		Hex Nut 1/4-20 Thd.*		45	736-0329		L-Wash. 1/4" Scr.*	
5	736-0329		L-Wash. 1/4" Scr.*		46	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg.*	
6	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg.*		47	736-0119		L-Wash. 5/16" Scr.*	
7	731-0423		Vinyl Molding Strip		48	712-0267		Hex Nut 5/16-18 Thd.*	
8	712-0287		Hex Nut 1/4-20 Thd.*		49	13820		Lower Frame Ass'y.	
9	736-0329		L-Wash. 1/4 Scr.*		50	710-0600		Hex Thd. Rolling Scr. 5/16-24 x .50" Lg.	
10	723-0296		Hood Latch Ass'y.		51	13862		Grille Mount Brkt.—R.H.	
11	725-0119		Ammeter		52	13863		Grille Mount Brkt.—L.H.	
12	710-0351		Hex Tap Scr. #10 x .50" Lg.*		53	13828 —452		Running Board—R.H.	
13	725-0459		Circuit Breaker 8 Amp.			13827 —452		Running Board—L.H. (Not Shown)	
14	710-0351		Hex Tap Scr. #10 x .50" Lg.*		54	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.*	
15	727-0199		Hood Stop		55	710-0600		Hex Thd. Rolling Scr. 5/16-24 x .50" Lg.	
16	710-0255		Truss Mach. Scr. 1/4-20 x .75" Lg.*		57	720-0166		Knob (Throttle Control)	
17	749-0220		Grille Positioning Rod		58	14058 —462		Fender Ass'y.—R.H.	N
18	722-0137		PVC Foam Strip 1/2 x 1.00" x 12.5" Lg.			14057 —462		Fender Ass'y.—L.H. (Not Shown)	N
19	712-0287		Hex Nut 1/4-20 Thd.*		59	710-0600		Hex Thd. Rolling Scr. 5/16-24 x .50" Lg.	
20	736-0329		L-Wash. 1/4" Scr.*		64	738-0435		Running Board Rod	
21	710-0599		Hex Thd. Rolling Scr. 1/4-20 x .50" Lg.		65	726-0156		Speed Nut	
22	712-0344		Speed Nut #10 Z		66	14056 —452		Transmission Cover	N
23	712-0287		Hex Nut 1/4-20 Thd.*		68	—		Part of Ref. No. 11	
24	736-0329		L-Wash. 1/4" Scr.*		69	—		Part of Ref. No. 11	
25	725-0634		Light Switch		70	—		Part of Ref. No. 11	
26	710-0166		Hex Scr. 1/4-20 x .62" Lg.*		71	731-0405		Snap Bushing	
27	13843		Dash Panel Ass'y.		72	710-0473		Truss Hd. Scr. 1/4-20 x .75" Lg.	
28	746-0385		Throttle Control Comp. 17.0" Lg.	N	73	738-0401		Hitch Rod	
29	749-0220		Grille Positioning Rod		75	714-0149		Internal Cotter Pin	
30	712-0287		Hex Nut 1/4-20 Thd.*		79	13814		Seat Plate	
31	736-0329		L-Wash. 1/4 Scr.*		82	710-0118		Hex Scr. 5/16-18 x .75" Lg.*	
32	09960		Head Lamp Retainer		83	736-0119		L-Wash. 5/16" Scr.*	
33	725-0201		Ignition Key		84	710-0689		Hex Scr. Nylon Scr. 1/2-13 x .75" Lg.	
34	725-0267		Ignition Switch		85	736-0192		Fl-Wash. .50" I.D. x 1.00" O.D. x .090	
35	725-0222		Head Lamp		86	712-0206		Hex Nut 1/2-13 Thd.*	
36	710-0258		Hex Scr. 1/4-20 x .62" Lg.*		87	13123		Seat Spring	
37	735-0144		Rubber Wash. .50" I.D. x 1.00" O.D. x .25 Thk.		89	13864 —462		Grille Side Panel—R.H.	
38	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg.*			13235 —462		Grille Side Panel—L.H. (Not Shown)	
39	736-0329		L-Wash. 1/4" Scr.*		90	736-0173		Flat Wash. 1/4" I.D.	
40	712-0287		Hex Nut 1/4-20 Thd.*						
41	736-0329		L-Wash. 1/4" Scr.*						



NOTE

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

130-720A



For parts on bottom of
this page refer to page
28.

DRIVE SYSTEM

PARTS LIST FOR MODEL 130-720A

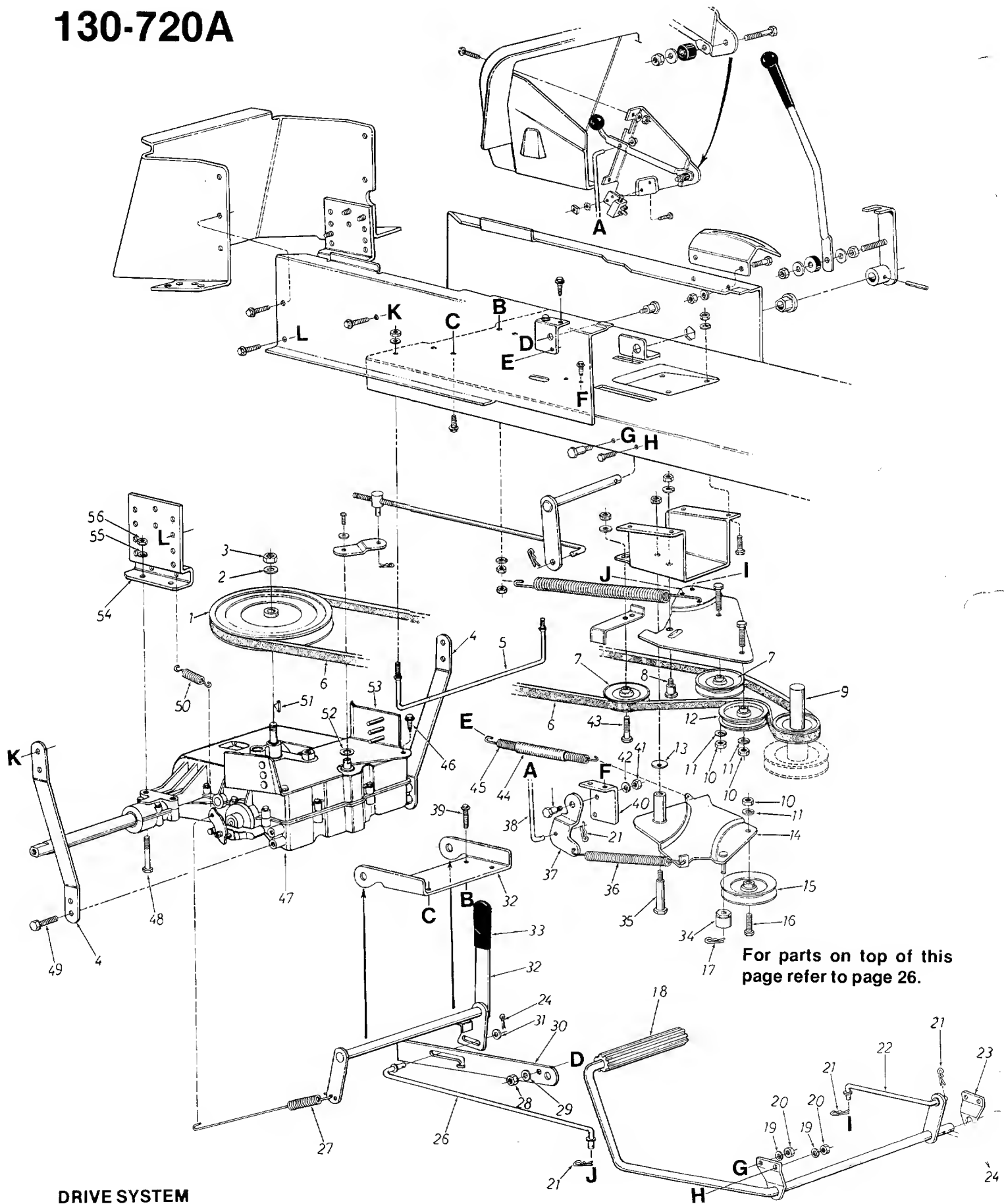
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	13813		Hitch Plate		35	712-0267		Hex Nut 5/16-18 Thd.*	
2	14067		Transaxle Support Bracket	N	36	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*	
3	13847		Side Panel Upper Frame L.H.		37	736-0119		L-Wash. 5/16" I.D.*	
4	710-0286		Truss. Mach. Scr. 1/4-20 x .50" Lg.*		38	747-0341		Shift Link	N
5	13843		Dash Panel Ass'y.		39	714-0145		Hairpin Cotter 3/8"	
6	720-0165		Ball Knob (Blade Clutch)		40	14192		Shifter Bracket	N
7	736-0329		L-Wash. 1/4" I.D.*		41	736-0270		Belleville Wash. .25" I.D. x .375" O.D.	
8	712-0287		Hex Nut 1/4-20 Thd.*		42	710-0513		Hex Bolt 1/4-28 x .62" Lg. (Special)	
9	726-0106		Push Cap 1/4" Rod		43	711-0198		Pivot Bushing	
10	13950		Deck Clutch Control Brkt.		44	14034		Speed Control Shaft Ass'y.	N
11	712-0107		Hex Cent. L-Nut 1/4-20 Thd.		45	736-0300		FI-Wash. .385" I.D. x .87" O.D. x .060 Thk.	
12	736-0173		FI-Wash. .281" I.D. x .734" O.D. x .063 Thk.		46	712-0214		Hex Cent. L-Nut 3/8-24 Thd.	
13	735-0126		Rubber Wash. .330" I.D. x .87" O.D. x .32 Thk.		47	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
14	747-0157		Blade Clutch Lever		48	710-0201		Hex Bolt 3/8-16 x .62" Lg.*	
15	720-0143		Grip		49	738-0234		Shoulder Bolt .500" Dia. x .345" Lg. (3/8-16)	
16	747-0317		Shift Lever	N	50	710-0599		Hex Thd. Rolling Scr. 1/4-20 x .50" Lg.	
17	14197		Shift Bracket	N	51	13833		Parking Brake Cam Mtg. Brkt.	
18	710-0752		Hex Bolt 5/16-18 x .62" Lg.*		52	710-0599		Hex Thd. Rolling Scr. 1/4-20 x .50" Lg.	
19	712-0158		Hex Cent. L-Nut 5/16-18 Thd.		53	736-0329		L-Wash. 1/4" I.D.*	
20	736-0159		FI-Wash. .344" I.D. x .875" O.D. x .063 Thk.		54	712-0287		Hex Nut 1/4-20 Thd.*	
21	735-0126		Rubber Wash. .330" I.D. x .87" O.D. x .32 Thk.		55	710-0371		Hex Bolt 5/16-18 x .88" Lg. (Special)	
22	712-0267		Hex Nut 5/16-18 Thd.*		56	13848		Side Panel Upper Frame—R.H.	
23	14195		Handle Mount Brkt. Ass'y. (Shift Lever)	N	57	710-0600		Hex Thd. Rolling Scr. 5/16-24 x .50" Lg.	
24	715-0108		Spring Pin Spiral 1/4" Dia. x 1.00" Lg.		58	710-0599		Hex Thd. Rolling Scr. 1/4-20 x .50" Lg.	
25	741-0225		Plastic Hex Bearing .625" I.D.		59	738-0155		Shoulder Bolt .435" Dia. x .160 (5/16-18)	
26	712-0267		Hex Nut 5/16-18 Thd.*		60	712-0267		Hex Nut 5/16-18 Thd.*	
27	736-0119		L-Wash. 5/16" I.D.*		61	736-0119		L-Wash. 5/16" I.D.*	
28	14035		Speed Control Shaft Brkt.		62	710-0473		Truss Mach. Scr. #10-24 x .50" Lg.*	
29	14063		Transaxle Clutch Support Brkt.	N	63	725-0465		Safety Switch	
30	710-0378		Hex Bolt 5/16-18 x 2.50" Lg.*		64	736-0147		Ext. L-Wash. #10 Scr.*	
31	710-0342		Hex Bolt 3/8-16 x 1.25" Lg.*		65	712-0121		Hex Nut #10-24 Thd.*	
32	14064		Idler Bracket Ass'y.	N	66	747-0307		Deck Control Rod	
33	13819		Belt Guard						
34	732-0307		Extension Spring .995" O.D. x 11.0" Lg.						

(462—Red Flake)

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

When ordering parts if color is important, use the appropriate color code listed above. (e.g. 12369—462—Red Flake)

130-720A

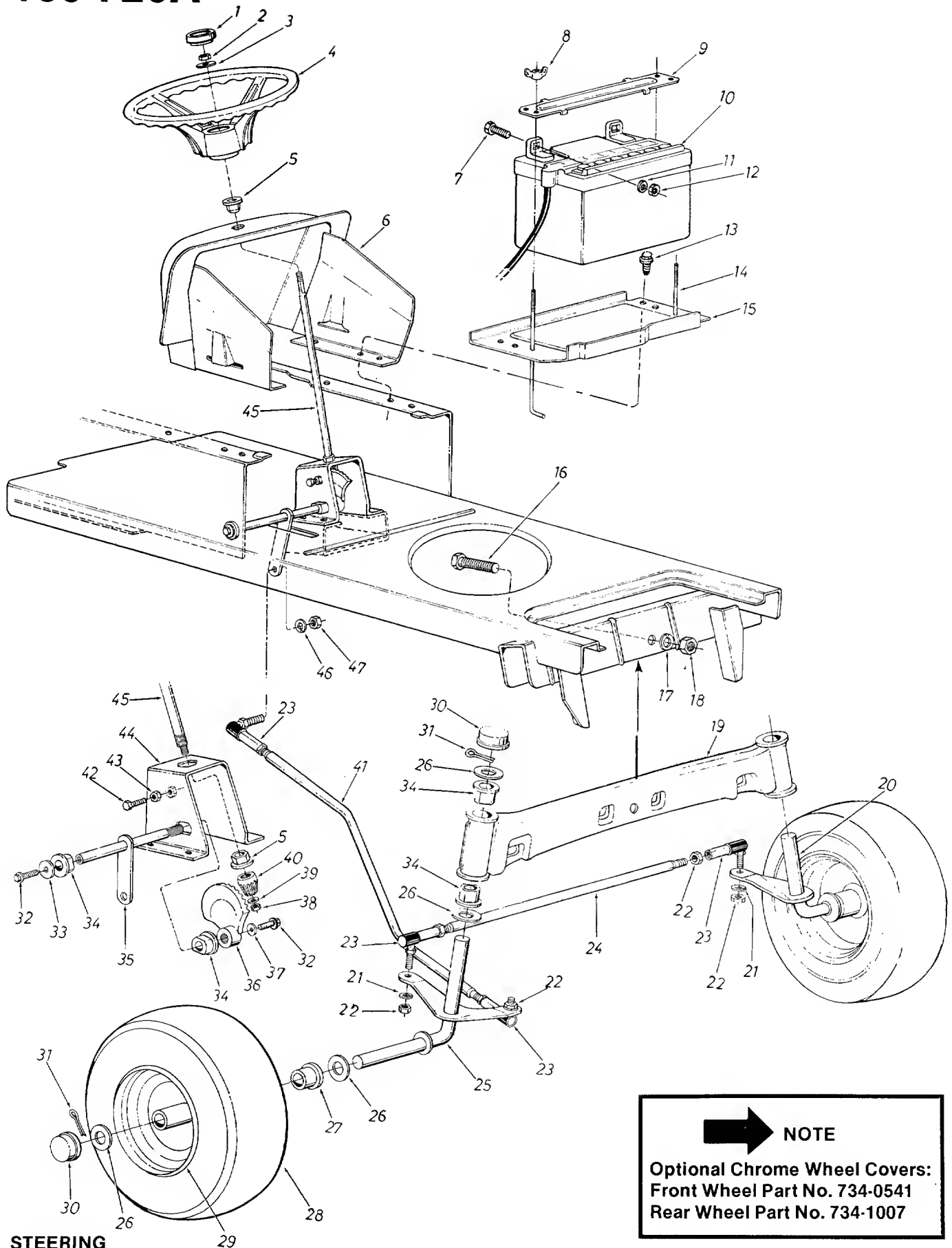


DRIVE SYSTEM

PARTS LIST FOR MODEL 130-720A

REF. O.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	756-0341		8" "V"-Pulley (Transaxle)	N	32	14073		Hand Brake Lever Ass'y.	N
2	736-0921		L-Wash. 1/2" I.D.*		33	720-0189		Grip—Flat Bar 1 1/4" Wide	N
3	712-0922		Hex Nut 1/2-20 Thd.*		34	748-0278		Spacer	
4	14066		Transaxle Brace	N	35	738-0129		Shoulder Bolt .496" Dia. x	
5	737-0322		Belt Guard	N				2.00" Lg. (3/8-16)	
6	754-0248		"V"-Belt 1/2" x 89" Lg.	N	36	732-0384		Extension Spring .620"	
			(Kevlar)					O.D. x 6.12" Lg.	
7	756-0116		"V"-Belt Idler Pulley .38"		37	13887		Deck Control Brkt.	
			I.D. x 3-1/16" O.D.		38	747-0307		Deck Control Rod	
8	738-0155		Shoulder Bolt .435" Dia. x		39	710-0442		Hex Bolt 5/16-18 x 1.50"	
			.160 (5/16-18)					Lg.*	
9	756-0342		Two Step Engine Pulley	N	40	13833		Parking Brake Cam Mtg.	
			3.10" & 5.56" Dia.					Brkt.	
10	712-0798		Hex Nut 3/8-16 Thd.*		41	712-0267		Hex Nut 5/16-18 Thd.*	
11	736-0169		L-Wash. 3/8" I.D.*		42	736-0119		L-Wash. 5/16" I.D.*	
12	756-0225		Flat Idler Pulley 2.75" O.D.		43	710-0459		Hex Bolt 3/8-24 x 1.50" Lg.	
13	736-0105		Belleville Wash. .400" I.D.					(Grade 5)	
			x .88" O.D. x .063	N	44	731-0483		Convolute Conduit .50" I.D.	
14	14076		Idler Bracket Ass'y.					x 4.0" Lg.	
15	756-0293		4" "V"-Idler Pulley		45	732-0308		Ext. Spring .50" O.D. x 6.37"	
16	710-0342		Hex Bolt 3/8-16 x 1.25" Lg.*					Lg.	
17	714-0104		Hairpin Cotter 5/16" Dia.		46	710-0726		Hex Wash. Hd. AB Tap Scr.	
18	735-0196		Foot Pad					5/16-24 x .75" Lg.	
19	736-0169		L-Wash. 3/8" I.D.*		47	—		Transaxle (See Breakdown	
20	712-0798		Hex Nut 3/8-16 Thd.*					on Page 34)	
21	714-0145		Hairpin Cotter 3/8" Dia.		48	710-0378		Hex Bolt 5/16-18 x 2.50"	
22	747-0318		Brake Clutch Rod (4.60" Lg.)					Lg.*	
23	13859		Clutch Rod Bearing Brkt.		49	710-0726		Hex Wash. Hd. AB Tap Scr.	
24	714-0474		Cotter Pin 1/8" Dia. x 1.00"					5/16-24 x .75" Lg.	
			Lg.*		50	732-0433		Extension Spring .50"	
25	14040		Clutch Brake Pedal Ass'y.	N				O.D. x 2.75" Lg.	
26	747-0319		Brake Cam Rod (13.60" Lg.)		51	714-0129		Hi-Pro Key 3/32" x	N
27	732-0381		Extension Spring .59" O.D. x					5/8" Dia.	N
			.93" Lg.		52	717-0234		Special Wash. 1.00"	
28	712-0267		Hex Nut 5/16-18 Thd.*					O.D. (Hdn.)	
29	736-0119		L-Wash. 5/16" I.D.*		53	14193		Transaxle Belt Keeper Ass'y.	
30	13832		Parking Brake Cam		54	14067		Transaxle Support Bracket	
31	736-0101		Fl-Wash. .406" I.D. x 1.00"		55	736-0119		L-Wash. 5/16" I.D.*	
			O.D. x .030 Thk.		56	712-0267		Hex Nut 5/16-18 Thd.*	

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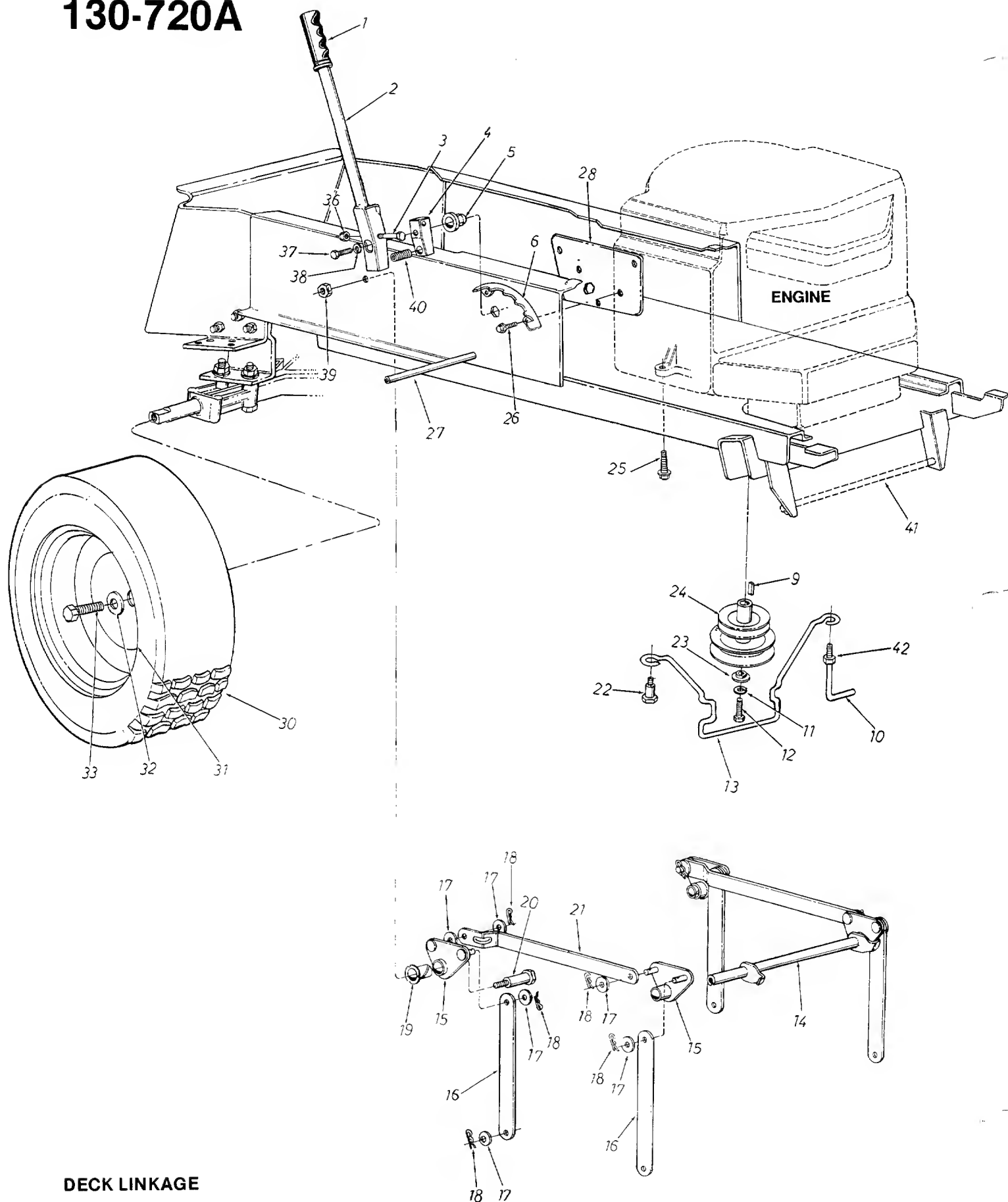
STEERING

NOTE
 Optional Chrome Wheel Covers:
 Front Wheel Part No. 734-0541
 Rear Wheel Part No. 734-1007

PARTS LIST FOR MODEL 130-720A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0220		Steering Wheel Cap		28	734-0960		Front Wheel Ass'y. Comp.	
2	712-0158		Hex Cent. L-Nut 5/16-18 Thd.		29	734-0961		Front Wheel Rim Only	
3	736-0275		Fl-Wash. 5/16" I.D. x 1.00" O.D. x .057			734-0498		Front Wheel Tire Only 15 x 6.00	
4	731-0356		Steering Wheel			734-0255		Air Valve	
5	741-0225		Plastic Hex Bearing 5/8" I.D.		30	731-0484		Dust Cover	
6	13843		Dash Panel Ass'y.		31	714-0121		Cotter Pin 5/32" Dia. x 1.00" Lg.*	
7	710-0258		Hex Scr. 1/4-20 x .62" Lg.					Hex Scr. 3/8-24 x .75" Lg. Grade 5	
8	712-0113		Wing Nut Plastic 1/4-20 Thd.		32	710-0180		Fl-Wash. 3/8 I.D. x 1.25 O.D. x .090	
9	12614		Battery Hold Down					Flange Double "D" Brg. .753 I.D.	
10	725-0453		12-V Battery		33	736-0133		Steering Arm Shaft Ass'y.	
11	736-0329		L-Wash. 1/4" Scr.*					Side Gear—Steering	
12	712-0287		Hex Nut 1/4-20 Thd.*		34	741-0199		Bell-Wash. 3/8" I.D.	
13	710-0599		Hex Thd. Rolling Scr. 1/4-20 x .50" Lg.		35	12749		Hex Cent. L-Nut 5/16-24 Thd.	
14	711-0222		Battery Hold Down Rod		36	748-0237		Fl-Wash. 5/16" I.D. x .62 O.D. x .059	
15	13379		Battery Plate		37	748-0237		Pinion Gear—Steering	
16	710-0533		Hex Scr. 5/8-18 x 2.50" Lg.*		38	747-0302		Drag Link	
17	736-0158		L-Wash. 5/8" Scr.*		39	710-0670		Hex Nylon Scr. 3/8-16 x 1.25" Lg.	
18	712-0923		Hex Cent. L-Nut 5/8-18 Thd.					Hex Nut 3/8-16 Thd.*	
19	13865		Front Pivot Bar Ass'y.		40	712-0798		Steering Gear Sup. Ass'y.	
20	13839		Front Axle Ass'y.—L.H.		41	12850		Steering Shaft	
21	736-0169		L-Wash. 3/8" Scr.*		42	738-0317		L-Wash. 3/8" Scr.*	
22	712-0241		Hex Nut 3/8-24 Thd.*		43	736-0169		Hex Nut 3/8-24 Thd.*	
23	723-0156		Ball Joint Ass'y.		44	712-0241			
24	747-0301		Tie Rod		45				
25	13838		Front Axle Ass'y.—R.H.		46				
26	736-0316		Fl-Wash. .780 I.D. x 1.59 O.D.		47				
	741-0298		Flange Bearing						

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DECK LINKAGE

PARTS LIST FOR MODEL 130-720A

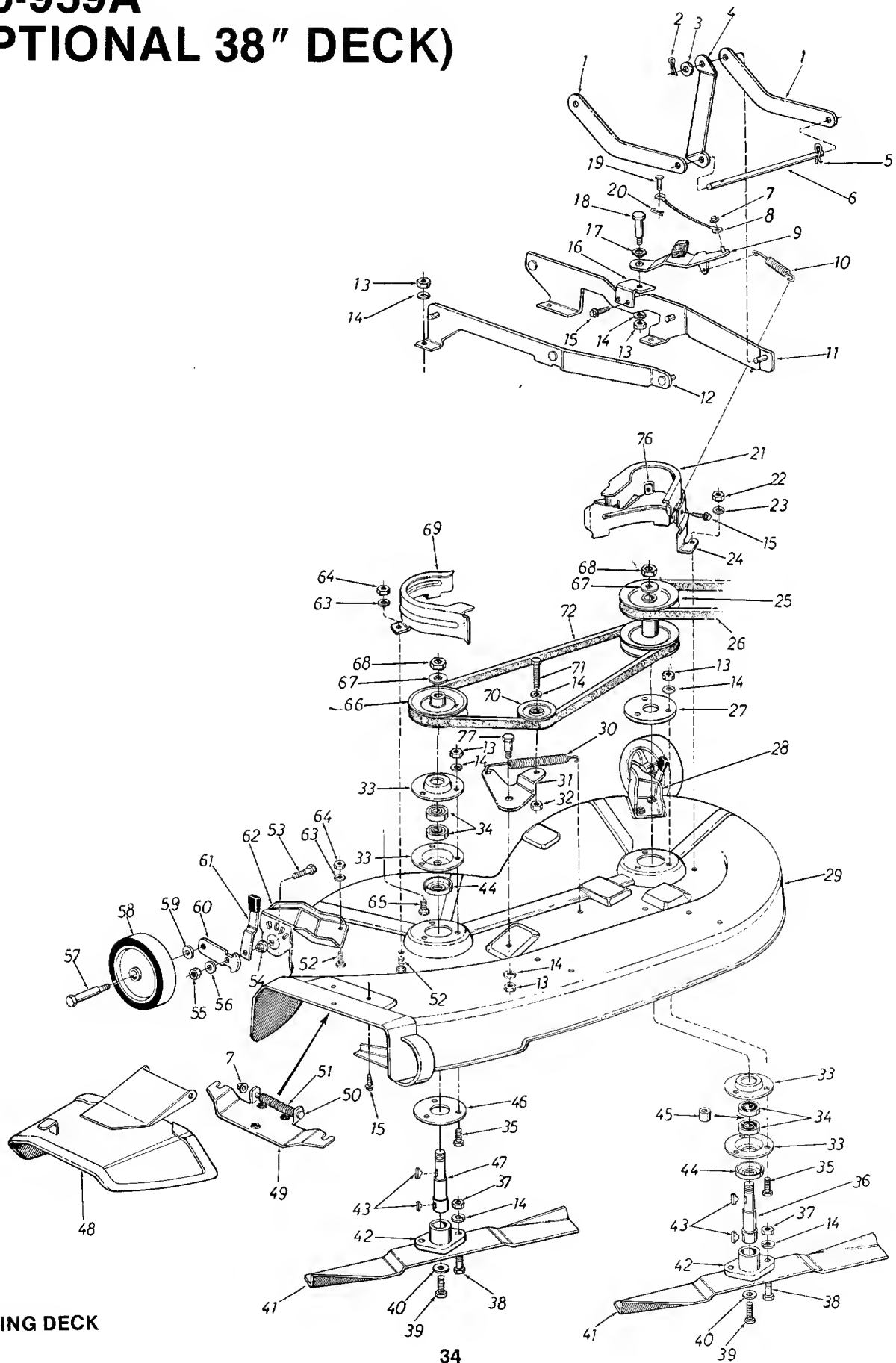
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	720-0157		Grip		23	736-0322		Fl-Wash. 7/16" I.D. x 1.25	
2	14233		Lift Handle Ass'y.	N				O.D. x .180 Thk.	
3	710-0442		Hex Scr. 5/16-18 x 1.50" Lg.*		24	756-0342		Two-Step Engine Pulley	N
4	748-0274		Lift Shaft Drive		25	710-0502		Hex Wash. Hd. Scr. 3/8-16 x	
5	741-0225		Plastic Hex Brg. 5/8" I.D.					1.25" Lg.	
6	14231		Index Brkt. Deck Lift	N	26	710-0600		Hex Thd. Rolling Scr. 5/16-24	
9	714-0118		Sq. Key 1/4" x 1/4" x 1.50" Lg.					x .50" Lg.	
10	747-0216		Belt Guard Lock Pin		27	738-0435		Running Board Rod	
11	736-0171		L-Wash. 7/16" Scr.*		28	14170		Index Brkt. Reinforcement	N
12	710-0757		Hex Scr. 7/16-20 x 1.50" Lg.	N				Plate	
13	747-0320		Belt Guard	N	30	734-0760		Rear Wheel Ass'y. Comp.	
14	13889		Lift Shaft Ass'y.		31	734-0764		Rear Wheel Rim Only	
15	13895		Lift Pivot Brkt. Ass'y.			734-0748		Rear Wheel Tire Only 18 x	
16	13791		Link (Deck)					9.50	
17	736-0192		Fl-Wash. 1/2" I.D. x 1.00"		32	736-0242		Belleville Wash. .345 I.D. x	
			O.D. x .090					.88 O.D.	
18	714-0474		Cotter Pin 1/8" Dia. x .75"		33	710-0627		Hex Bolt 5/16-24 x .75" Lg.	
			Lg.		36	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
19	741-0295		Nyliner 5/8" I.D. x .88" Lg.		37	710-0237		Hex Scr. 5/16-24 x .62" Lg.*	
20	738-0445		Shld. Scr. 5/8" Dia. x .96"		38	736-0119		L-Wash. 5/16" Scr.*	
			Lg. 3/8-16		39	712-0181		Hex Top L-Nut 3/8-16 Thd.	
21	13790		Connecting Link		40	732-0369		Compression Spring	
22	738-0296		Shld. Scr. .437 Dia. x .268 Lg.		41	738-0392		Deck Connecting Rod	
			5/16-18		42	712-0123		Hex Nut 5/16-24 Thd.*	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."



190-959A (OPTIONAL 38" DECK)



CUTTING DECK

PARTS LIST FOR OPTIONAL 38" DECK MODEL NO. 190-959A

REF.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
	13866		Deck Stabilizer		39	710-0459		Hex Bolt 3/8-24 x 1.50" Lg.*	
2	714-0111		Cotter Pin 3/32" Dia. x 1.00" Lg.		40	736-0217		L-Wash. 3/8" I.D. Heavy Duty	
3	736-0192		Fl-Wash. .50" I.D. x 1.00" O.D. x .090 Thk.		41	742-0122		19" Blade	
4	13867		Diagonal Brace		42	10769		Blade Adapter Kit	
5	714-0149		Hairpin Cotter		43	714-0365		#6 Hi-Pro Key 5/32 x 5/8" Dia.	
6	738-0392		Deck Connecting Rod		44	13703		Bearing Shield	
7	726-0106		Push Cap 1/4" Rod		45	750-0142		Spacer .790" I.D. x 1.0" O.D. x .315 Lg.	
8	746-0237		Brake Cable Ass'y.		46	09164		Deck Reinforcement Plate	
9	13908		Spindle Brake Arm Ass'y.		47	711-0255		Blade Spindle	
10	732-0250		Extension Spring		48	11633		Chute Cover Ass'y. Comp.	
11	14091		Hanger Brkt. Ass'y.—L.H. Side	N	49	11396		Adapter Plate	
12	14092		Hanger Brkt. Ass'y.—R.H. Side	N	50	711-0570		Hinge Pin	
13	712-0267		Hex Nut 5/16-18 Thd.*		51	732-0261		Torsion Spring	
14	736-0119		L-Wash. 5/16" I.D.*		52	710-0289		Hex Bolt 1/4-20 x .50" Lg.*	
15	710-0599		Hex Wash. Hd. Self-Tap Scr. 1/4-20 x .50" Lg.		53	710-0342		Hex Bolt 3/8-16 x 1.25" Lg.*	
16	14096		Spindle Brake Pivot Brkt.	N	54	748-0279		Shoulder Spacer	
17	736-0141		Wave Wash. .438" I.D. x .750" O.D. x .15 Thk.		55	712-0181		Hex Jam L-Nut 3/8-16 Thd.	
18	738-0155		Shld. Bolt .437" Dia. x .162" Lg. 5/16-18 Thd.		56	736-0219		Belleville Wash. .400" I.D. x 1.13" O.D. x .030	
19	711-0701		Clevis Pin 1/4" Dia. x 1.00" Lg.		57	738-0373		Shld. Bolt .498 Dia. x 1.53" Lg.	
20	714-0100		Hairpin Cotter 1/4" Dia.		58	734-0973		Deck Wheel 5" Plastic—Comp.	N
	14090		Upper Belt Guard—L.H. Side	N	59	736-0105		Belleville Wash. .400" I.D. x .88" O.D. x .060	
	712-0287		Hex Nut 1/4-20 Thd.*		60	10937		Wheel Pivot Bar—Deck	
23	736-0329		L-Wash. 1/4" I.D.*		61	14082		Spring Lever Ass'y. w/Knob	N
24	14089		Lower Belt Guard—L.H. Side	N	62	09080		Wheel Brkt.—R.H6	
25	756-0346		Deck Drive Pulley	N	63	736-0329		L-Wash. 1/4" I.D.*	
26	754-0244 754-0251		"V"-Belt 1/2" x 50.0" Lg. (Kevlar) "A" Sec.	N	64	712-0287		Hex Nut 1/4-20 Thd.*	
27	14088		Spindle Spacer Plate	N	65	710-0399		Sems Truss Hd. Scr. 5/16-18 x .50" Lgrkt.—R.H.	
28	09082		Wheel Brkt.—L.H. Side		63	736-0329		L-Wash. 1/4" I.D.*	
29	14087		38" Deck Ass'y.	N	64	712-0287		Hex Nut 1/4-20 Thd.*	
30	732-0121		Extension Spring		65	710-0399		Sems Truss Hd. Scr. 5/16-18 x .50" Lg.*	
31	14097		Deck Idler Brkt.	N	66	756-0278		Pulley 5.00" O.D.	
32	712-0375		Hex Cent. L-Nut 3/8-16 Thd.		67	736-0158		L-Wash. 5/8" I.D.*	
33	08253		Bearing Housing		68	712-0242		Hex Jam Nut 5/8-18 Thd.	
34	741-0919		Ball Brg. .787 I.D. x 1.85 O.D. x .55		69	14095		Belt Guard (R.H. Side)	N
35	710-0322		Hex Bolt 5/16-18 x 1.0" Lg.*		70	756-0293		4" "V"-Idler Pulley	
36	738-0466		Blade Spindle		71	710-0342		Hex Bolt 3/8-16 x 1.25" Lg.*	
37	712-0123		Hex Nut 5/16-24 Thd.*		72	754-0250		"V"-Belt .50" x 53.0" Lg. (4L)	N
38	710-0117		Hex Bolt 5/16-24 x 1.00" Lg.*		76	726-0292		Speed Nut 1/4-20 Thd.	
					77	738-0140		Shld. Bolt .437" I.D. x .185" Lg. 5/16-18 Thd.	

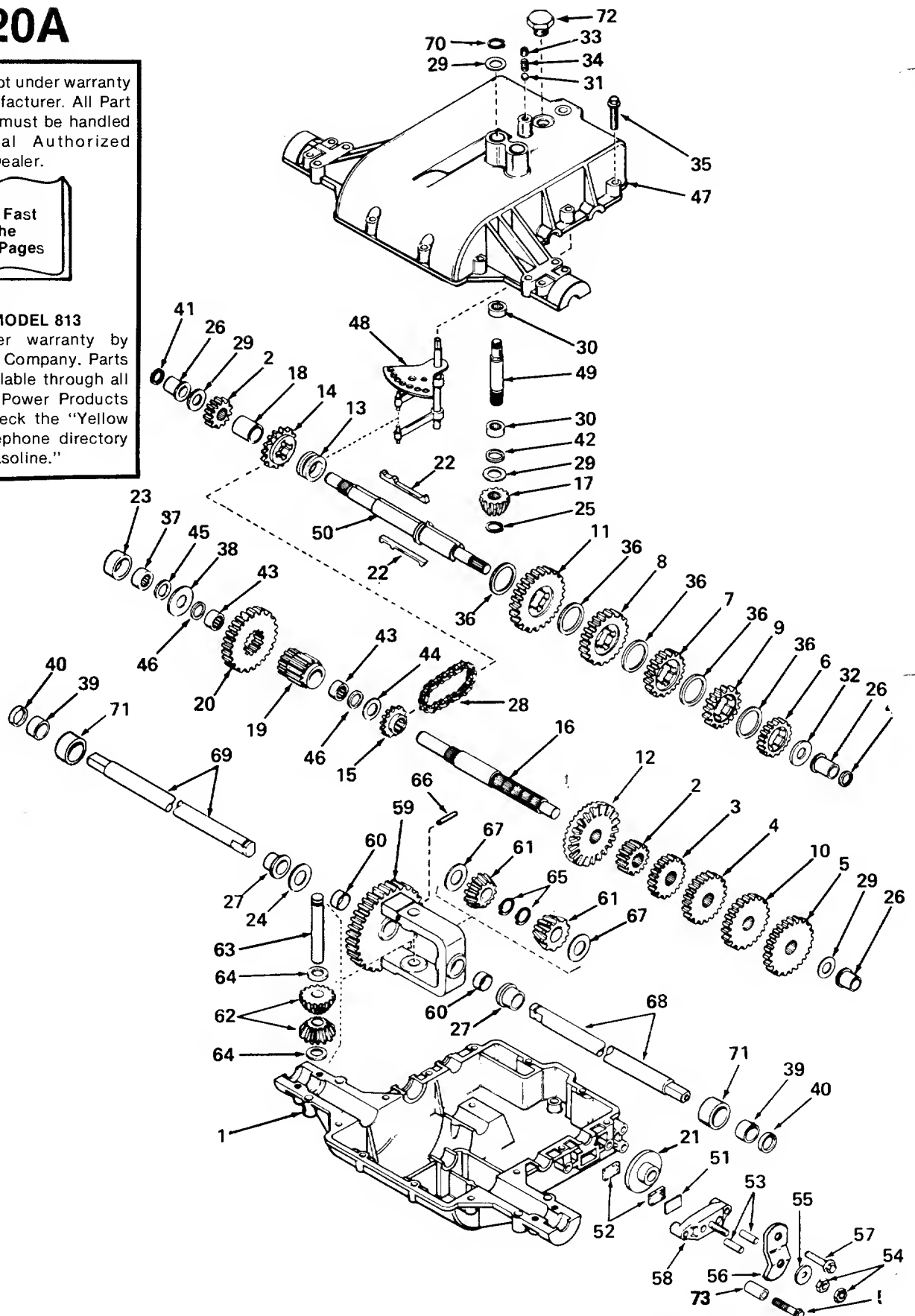
130-720A

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the local Authorized Tecumseh Service Dealer.



PEERLESS MODEL 813

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."



TRANSAXLE MODEL 813 AND 813A

PARTS LIST FOR TRANSAXLE MODELS 813 & 813-A

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	PE-770069A	Case, Transaxle	36	PE-780108	Washer, Thrust
2	PE-778136	Gear, Spur (15 Teeth) (Model 813)	37	PE-780111	Bearing, Needle
2	PE-778145	Gear, Spur (12 Teeth) (Model 813-A)	38	PE-780113	Washer, Flat
3	PE-778126	Gear, Spur (20 Teeth)	39	PE-530105	Bearing, Needle
4	PE-778127	Gear, Spur (25 Teeth)	40	PE-788042	Seal, Oil
5	PE-778129	Gear, Spur (30 Teeth)	41	PE-788051	Ring, Square Cut
6	PE-778121A	Gear, Spur (20 Teeth)	42	PE-792001	Ring, Square Cut
7	PE-778123	Gear, Spur (25 Teeth)	43	PE-780112	Bearing, Needle
8	PE-778124	Gear, Spur (30 Teeth)	44	PE-780114	Washer, Flat
9	PE-778122	Gear, Spur (22 Teeth)	45	PE-788052	Ring, Square Cut
10	PE-778128	Gear, Spur (28 Teeth)	46	PE-788053	Ring, Square Cut
11	PE-778125	Gear, Spur (35 Teeth) (Model 813)	47	PE-772077A	Cover, Transaxle
11	PE-778146	Gear, Spur (37 Teeth) (Model 813-A)	48	PE-784290	Rod and Fork Ass'y., Shift
12	PE-778137	Gear, Bevel (42 Teeth)	49	PE-776140	Shaft, Input
13	PE-784266	Collar, Shift	50	PE-776184	Shaft, Brake
14	PE-786083	Sprocket (18 Teeth)	51	PE-790007	Plate, Brake Pad
15	PE-786082	Sprocket (9 Teeth)	52	PE-790006	Pad, Brake
16	PE-776181	Shaft, Counter	53	PE-786026	Pin, Dowel
17	PE-778113A	Bevel Pinion, Input	54	PE-792075	Lock Nut , 5/16-24
18	PE-786074	Spacer	55	PE-792076	Washer, Flat
19	PE-778138	Pinion, Output	56	PE-790004	Lever, Brake
20	PE-778139	Gear, Output	57	PE-792073	Screw, Hex Hd. Thread Form- ing, 1/4-20 x 1-1/4
21	PE-790003	Disc, Brake	57A	PE-792085	Screw, Hex Hd. Thread Form- ing, 1/4-20 x 2-1/4
22	PE-792089A	Key	58	PE-790005	Holder, Brake Pad
23	PE-786075	Spacer	59	PE-778053A	Gear Ass'y., Differential (Incl. 2 of No. 60)
24	PE-780001	Washer	60	PE-780064	Bushing
25	PE-788040	Ring, Retaining	61	PE-778067	Gear, Bevel
26	PE-780105	Bushing, Flanged	62	PE-778068	Pinion, Bevel
27	PE-780118	Bushing, Flanged	63	PE-786034	Pin Drive
28	PE-786081	Chain, Roller (No. 41 Chain, 24 Links)	64	PE-780065	Washer, Thrust
29	PE-780072	Washer, Thrust	65	PE-792018	Ring, Retaining
30	PE-780086	Bearing, Needle	66	PE-792040	Pin, Roll
31	PE-792077	Ball, Steel	67	PE-780001	Washer, Thrust
32	PE-780109	Washer, Thrust	68	PE-774420	Axle (14-7/8" Long)
33	PE-792078	Screw, Set, 3/8-16 x 3/8	69	PE-774419	Axle (13-3/4" Long)
34	PE-792079	Spring	70	PE-792035	Ring, Retaining
35	PE-792073	Screw, Hex Hd. Thread Forming, 1/4-20 x 1-1/4	71	PE-786084	Spacer
			72	PE-792074	Plug
			73	PE-786066	Spacer

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the local Authorized Tecumseh Service Dealer.



PEERLESS MODEL 813

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts number, description of parts and the quantity of each part required.

ALABAMA	BIRMINGHAM
Auto Electric & Carburetor Co.	2625 4th Ave. S. 35233
ARKANSAS	FORT SMITH
Mity Mite Motors, Inc.	4515 South 16th Street 72901
	NORTH LITTLE ROCK
Sutton's Lawn Mower Shop	Rt. 4 Box 368. 72117
CALIFORNIA	PORTERVILLE
Billious	75 North D Street 93257
	SAN BERNARDINO
Lawn Mower Supply Co.	25608 E. Baseline 92410
	SAN FRANCISCO
J.W. Jewett Co.	981 Folsom St. 94107
COLORADO	DENVER
South Denver Lawn Equip.	527 West Evans 80223
FLORIDA	JACKSONVILLE
Radco Distributors	2403 Market St. 32206
	OPA LOCKA
Small Eng. Dist.	2351 N.W. 147th St. 33054
GEORGIA	EAST POINT
East Point Cycle & Key.	2834 Church St. 30344
ILLINOIS	LYONS
Keen Edge Co.	8615 Ogden Ave. 60534
INDIANA	ELKHART
Parts & Sales Inc.	2101 Industrial Pkwy. 46514
IOWA	DUBUQUE
Power Lawn & Garden Equip.	2551 J.F. Kennedy. 52001
LOUISIANA	NEW ORLEANS
Suhren Engine Co.	8330 Earhart Blvd. 70118
MARYLAND	TAKOMA PARK
Center Supply Co.	6867 New Hampshire Ave. 20012
MASSACHUSETTS	SPRINGFIELD
Morton B. Collins Co.	300 Birnie Ave. 01107
MICHIGAN	LANSING
Lorenz Service Co.	2500 S. Pennsylvania. 48910
	MOUNT CLEMENS
Power Equipment Dist.	36463 South Gratiot. 48043
MINNESOTA	HOPKINS
Hance Distributing Inc.	420 Excelsior Ave. W. 55343
	ST. PAUL
Power Tools Inc.	3771 Sibley Memorial Hwy. 55122
MISSISSIPPI	BILOXI
Biloxi Sales & Service, Inc.	506 Caillavet St. 39533
MISSOURI	KANSAS CITY
Automotive Equip. Service	3117 Holmes St. 64109
	ST. JOSEPH
Ross-Frazier Supply Co.	8th and Monterey 64503
	ST. LOUIS
Henzler, Inc.	2015 Lemay Ferry Rd. 63125
NEW JERSEY	BELLMAWR
Lawnmower Parts Inc.	717 Creek Rd. 08030
	RUTHERFORD
Feld Distributor	28 Glen Rd. 07070
NEW YORK	CARTHAGE
Gamble Dist., Inc.	West End Ave. 13619

BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check yellow pages of your telephone directory under the list. Engines—Gasoline, Briggs & Stratton or Tecumseh Lauson.

	SYRACUSE
GTP Leisure Products Inc.	420 Marcellus St. 13204
NORTH CAROLINA	GOLDSBORO
Smith Hardware Co.	515 N. George St. 27530
	GREENSBORO
Dixie Sales Company	327 Battleground Ave. 27402
OHIO	CARROLL
Stebe's Mid-State Mower Supply ...	Box 366-71 High St. 43112
	CLEVELAND
Bleckrie, Inc.	7900 Lorain Ave. 44102
	WADSWORTH
National Central	687 Seville Rd. 44281
	YOUNGSTOWN
Burton Supply Co.	1301 Logan Ave. Box 929 ... 44501
OKLAHOMA	ADA
Ada Auto Supply	301 E. 12th St. 74820
	MUSKOGEE
Victory Motors, Inc.	605 S. Cherokee. 74401
	OKLAHOMA CITY
Forest Sales Inc.	1039 NW 63rd St. 73116
OREGON	PORTLAND
Kenton Supply Co.	8216 N. Denver Ave. 97217
PENNSYLVANIA	CHESTER
Stull Equipment Corp.	742 W. Front St. 19013
	HARRISBURG
EECO Inc.	4021 N. 6th St. 17110
	PHILADELPHIA
Thompson Rubber Co.	5222-24 N. Fifth St. 19120
	PITTSBURGH
Bluemont Co.	11125 Frankstown Rd. 15235
TENNESSEE	KNOXVILLE
Master Repair Service.	2000 Western Ave. 37
	MEMPHIS
Memphis Cycle & Supply Co.	421 Monroe Ave. 38103
American Sales & Service, Inc.	1922 Lynnbrook. 38116
TEXAS	DALLAS
Marr Brothers, Inc.	423 E. Jefferson. 75203
	FORT WORTH
Woodson Sales Corp.	1702 N. Sylvania. 76111
	HOUSTON
Bullard Supply Co.	2409 Commerce St. 77003
	SAN ANTONIO
Catto & Putty, Inc.	414 Live Oak 78298
UTAH	SALT LAKE CITY
A-1 Engine & Mower Co.	437 E. 9th St. 84111
VERMONT	BURLINGTON
Vermont Hdwe. Co. Inc.	180 Flynn Ave. 05401
VIRGINIA	RICHMOND
RBI Corp.	963 Myers St. 23260
WASHINGTON	SEATTLE
Bailey's Inc.	1414 14th Ave. 98102
WEST VIRGINIA	CHARLESTON
Young's, Inc.	233 Virginia St., E. 25301
WISCONSIN	APPLETON
Automotive Supply Co.	123 S. Linwood Ave. 54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.